

CLAYTONIA

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Special
Feature

MaryAnn King receives Carl Amason Conservation Award, *Article and photo by Michael Weatherford*

2019 Fall
Meeting Minutes
Page 17

2020 Spring
Treasurer's Report
Page 18

New Members
and Life Members
Page 19

2020 Spring
Meeting Cancelled!
Page 20

Membership
Application
Page 22

President's
Message
Page 23

I'm just an ordinary guy, and I don't like to admit that I sometimes get all choked up and emotional. So let's just keep this between you and me. I get misty-eyed at weddings, any wedding, just to see people so much in love. I choked up while recently watching the movie "Call of the Wild" when Buck (the dog) left John Thornton (his master played by Harrison Ford) to go live in the Yukon wilderness with his new-found love. Yesterday when my neighbor mowed down the spring beauties that covered his lawn like snow I retreated to my room and, sobbing, curled up into a fetal position. And I got a familiar feeling, eyes welling up and a lump in my throat, at the Arkansas Native Plant Society fall meeting as Eric Sundell presented the Carl Amason Conservation Award to long-time member MaryAnn King. I'm sure I wasn't the only one. One much loved stalwart of our organization honoring another.

The award honors Carl Amason, who died in 2005, a man whose character and achievements reflected the best aspirations of ANPS membership. Like Carl, MaryAnn has done just about everything a member can do to support the Society. In the more than two decades that she has been a member, MaryAnn has attended just about every meeting, served as an officer in many roles including president, led field trips, shared plants, written articles for Society publications, and auctioned off a countless number of plants at the annual native plant auctions. And we don't want to forget that Pine Ridge Gardens, a native plant nursery which MaryAnn founded and has operated in Pope County since 1992, has donated thousands of dollars' worth of native



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plants to be sold in the auctions. Needless to say, she is the go-to person for anyone with questions about using native plants in their landscape.

In 2019 MaryAnn was named to the Arkansas Outdoor Hall of Fame by the Arkansas Game and Fish Foundation. Check out this article for more information on the hall of fame and MaryAnn's other accomplishments: <https://www.arkansasonline.com/news/2019/aug/18/pope-county-nursery-owner-named-arkansas-outdoor-h/>

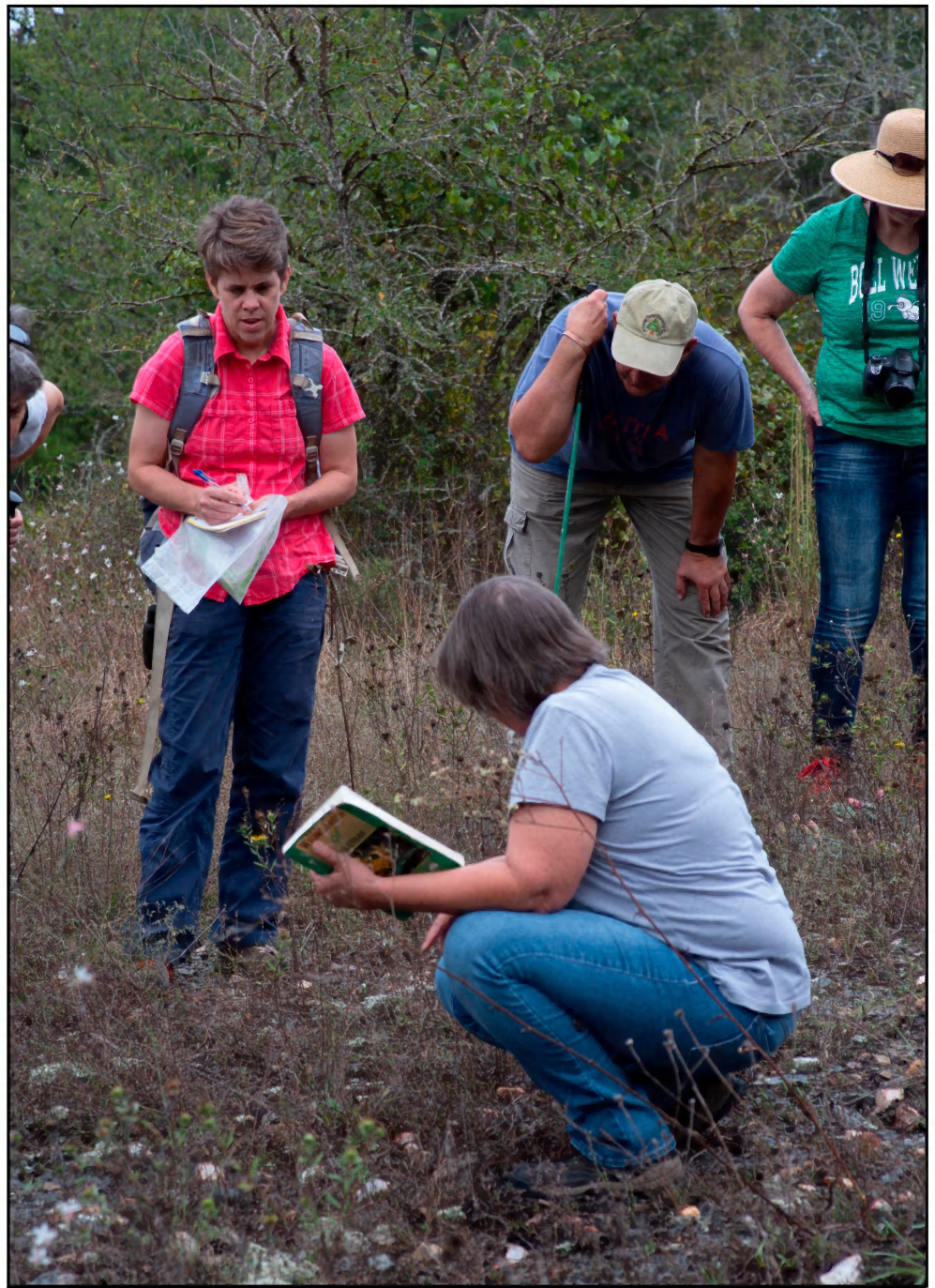
It's easy to see why we have a special place in our hearts for MaryAnn King. Congratulations, MaryAnn. Keep up the good work! We love you, love you, love you! Oh no, I'm getting choked up again.

Arkansas Native Plant Society Members,

First, I feel I should apologize for not standing up and thanking you all for the honor you gave by giving me the Carl Amason Conservation Award. I was so stunned to hear Eric make this announcement – all I've wanted to do is to make Arkansas native plants more readily available to folks and share the love of them with whoever would listen. I thank you all for this honor. It means much more than the AGF Foundation award I received earlier this year.

Many of you have helped me in sharing seed and plants & knowledge.

I love you all,
MaryAnn King



Above: Virginia McDaniel and Susan Hooks study plants to come up with a positive identification during Fall 2019 field trip. Photo by Michael Weatherford.

Below: A Pygmy rattlesnake made an appearance during one of the field trips . Photo by Michael Weatherford.



Governor's Mansion Champion Trees

by Karen Seale

On October 23, 2019, Eric Sundell led a group of native plant enthusiasts on a two-hour walk through of the grounds of the Arkansas Governor's Mansion with the primary focus the native trees. Eric and Karen Seale had scoped out the area on a warm day at the end of May to see if a tour of the grounds might be worthwhile. Although most of the landscaping comprised standard (and beautiful) exotic ornamentals, the shade trees were large and impressive natives and well worth an ANPS outing. Eric's experience in the past, when offering similar outings in central Arkansas, has been a gratifying response from ANPS members, and interestingly, in particular from folks who are not regulars at the annual meetings.

During that initial reconnoiter, Holly Wyman, the Mansion Grounds Horticulturist, joined us and provided insight on some of the features of the landscaping. For example, when P. Allen Smith helped redesign the grounds a few years ago, he suggested that the southeast quadrant be specifically designated the native plant section. All Karen did during that initial tour was tag along, listening to Eric and Holly speak Latin to one another. Toward the end of the walk, she gratefully and joyfully enjoyed the cool shade provided by a large magnolia tree in the northwest quadrant from which a marvelous wooden swing was hanging.

Holly followed up by arranging to make the grounds available for our group tour, carving out a time on the Mansion's busy calendar for us. The grounds are used frequently for state sponsored events such as teas, open houses, and dinners. As

luck would have it, she was able to reserve a date for our tour on the first beautiful fall day after what seemed an unending string of hot summer days.

For the October 23 event, there were 17 people in attendance. Several different organizations were represented as some of the attendees are "combination members" of the following groups: ANPS, Master Naturalists (Central Arkansas, Diamond Lakes, and Foothills chapters), Audubon Arkansas, Arkansas Audubon Society, and Wild Ones Central Arkansas. Each of the participants was provided a hard copy list of the scientific and common names of all the native trees on the property. Several attendees commented on how nice it was to have this information in hand. Star Reparetti shared: "One of the million things that I enjoyed (on the walk) was the quote by Liberty Hyde Bailey that Eric started with: 'To know the names of the forms of life is one of the keenest satisfactions.'" Several people commented that the species list enabled them to pay better attention to the other tidbits of information provided. Speaking of which, Mara Leveritt, noted, "I will always cherish the image of Daniel Boone piling his family into a sixty-foot canoe carved out of a yellow-poplar tree trunk to float the Ohio River. Don't we wish we could have gone along!" Another bit of helpful trivia that Star recalled was that the leaves of the Sweetbay, *Magnolia virginiana*, could be used in cooking just like the commercially available culinary bay leaves.

One of the most intriguing Arkansas natives on the mansion grounds is Stern's medlar, *Crataegus x canescens*, a large shrub with showy white flowers and bright red

fruit but sterile seeds. It is known only (in the wild) from a single grove of trees (Konecny Grove Natural Area) in the Grand Prairie region of Arkansas near Slovak in Prairie County—an Arkansas endemic. Genetic study has revealed that the plants are natural hybrids, most likely between a rare Arkansas native hawthorn, *Crataegus brachyacantha* (blueberry hawthorn) and a small eastern European tree, *Mespilus germanica* (the medlar). Medlars are cultivated in Europe for their edible fruit and were likely grown by early eastern European settlers of that region of the Grand Prairie.

Horticulturally, because they are sterile hybrids, they can't be grown from seed. Instead, they are "reproduced" either by grafting stems to *Crataegus* (hawthorn) roots (*Crataegus opaca*, mayhaw, often used) or by rooting the stems. I don't know how the mansion plant was produced. I think Holly said they planted their Stern's medlar this year for Arbor Day.

At the conclusion of the two-hour stroll, everyone reconvened at a local eatery not far from the Governor's Mansion, The Root Cafe. By that time, the lunch rush had abated somewhat so we didn't feel too guilty laying claim on the largest table (plus a smaller side table) to re-hash what we had seen and to enjoy the company of like-minded, native plant loving peeps. *A huge note of gratitude to Holly Wyman for arranging our access to the property and to Eric Sundell for his meticulous preparation and sharing his knowledge of all things native.*

Here is an annotated list of the native trees of the Arkansas Governor's Mansion grounds:

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BEECH FAMILY, Fagaceae (All red oaks, a group endemic to North America.)

Cherrybark Oak, *Quercus pagoda*
Pin Oak, *Quercus palustris*
Shumard Oak, *Quercus shumardii*
Water Oak, *Quercus nigra*

CYPRESS FAMILY, Cupressaceae

Baldcypress, *Taxodium distichum* (The most distinctive of southern conifers. The longest-lived tree in eastern North America, 1,700+ years—a close cousin to giant sequoia and California redwood. Grown ornamentally as far north as southern Canada, but native north only to Cairo, Illinois.)

Redcedar, *Juniperus virginiana* (For nearly 100 years, supplied the world with pencil wood. Cedar waxwings take their name from fondness for redcedar “berries.”)

DOGWOOD FAMILY, Cornaceae

Dogwood, Flowering Dogwood, *Cornus florida*

ELM FAMILY, Ulmaceae

Cedar Elm, *Ulmus crassifolia* (An unusual elm, blooming in late summer and fall, not spring.)

Sugarberry, *Celtis laevigata* (The most common wild tree in Little Rock. Now classified in Hemp Family, Cannabaceae.)

HOLLY FAMILY, Aquifoliaceae

American Holly, *Ilex opaca* (Garden favorite with more than 1,000 named cultivars and hybrids.)

MAGNOLIA FAMILY, Magnoliaceae

Southern Magnolia, *Magnolia grandiflora* (An Arkansas volunteer but not a native. Created a sensation when introduced into Europe in the 18th century: no native European magnolias—Pleistocene glaciation wiped them out.)

Sweetbay, *Magnolia virginiana*

Yellow-Poplar, Tulip-Poplar, Tulip Tree, *Liriodendron tulipifera* (Tallest hardwood tree in North America, to 200 ft.)

MAPLE FAMILY, Aceraceae

Red Maple, *Acer rubrum*

PINE FAMILY, Pinaceae

Loblolly Pine, *Pinus taeda*

ROSE FAMILY, Rosaceae

Stern's Medlar, *Crataegus x canescens*

TUPELO FAMILY, Nyssaceae

Black Gum, Pepperidge Tree, *Nyssa sylvatica*

WALNUT FAMILY, Juglandaceae

Black Hickory, *Carya texana*

Pecan, *Carya illinoensis* (“Discovered” by DeSoto in 1541 in swamps of eastern Arkansas.)

Governor's Mansion field trip participants
led by Eric Sundell. Photo by Karen Seale.



Fall 2019 Meeting - Terre Noire Natural Area Trip Report

By Eric Hunt

Diana Soteropoulos and I led an enthusiastic group of Fall meeting participants to Terre Noire Natural Area on the morning of September 28, 2019. The late summer weather was still fairly warm (hot, even!) but Terre Noire is so rich in amazing plants and the terrain is so gentle and forgiving that we were able to enjoy the sights without too much heat stress!

The walk started along the road on the northern edge of the Natural Area adjacent to a restored pine savannah. On my first visit to Terre Noire in 2013 this spot was thick with planted pines, but in the years since, the Arkansas Natural Heritage Commission has done extensive site restoration and removed most of the pines and reintroduced prescribed fire. The understory has responded well, with the native forbs and grasses flourishing. It was here we found our most exciting plant, a previously unknown population of showy goldenrod (*Solidago speciosa*), just coming into full bloom. The seeds (and possibly small, struggling plants) had remained dormant and hidden in the pine plantation for decades, and once the pines were thinned, the goldenrod quickly returned to full glory. This is a goldenrod everyone should be growing in their native plant garden. The area was filled with other goldenrods, including tall (*S. altissima*) and common wrinkle-leaved (*S. rugosa*). Below the goldenrods was slender false foxglove (*Agalinis tenuifolia*), glowing in the sunlight with dark purple foliage and light purple flowers, each lasting only a day.

As we moved deeper into the natural area from the road, we started seeing the season's first sawtooth sunflowers (*Helianthus grosseserratus*) coming into bloom above our heads, along with seed heads of purple coneflower (*Echinacea purpurea*) at our knees. Other species noticed were marbleseed in full fruit (*Lithospermum bejariense*), Indiangrass (*Sorghastrum nutans*), bushy bluestem (*Andropogon glomeratus*), silver plumegrass (*Saccharum alopecuroides*), Maryland senna (*Senna marilandica*), lanceleaf ragweed (*Ambrosia bidentata*), lanceleaf greenbrier (*Smilax smallii*), Carolina buckthorn (*Frangula caroliniana*), and Texas dutchman's pipe (*Aristolochia reticulata*).

We next stopped at a small prairie pocket where there were several beautiful native grasses including rough dropseed (*Sporobolus clandestinus*) and arrowfeather wiregrass (*Aristida purpurascens*) as well as the beautiful American bluehearts in great abundance (*Buchnera americana*).

The first half of the walk was over and we all got back in our cars and drove down the road a mile or so to the parking area for the blackland prairie.

Late summer on the prairie was beautiful. Little bluestem (*Schizachyrium scoparium*) waved in the breeze, looking almost like ocean swells if you squinted just so. We started seeing wildflowers among the grass: blazingstar (*Liatris squarrulosa*), the first ladies' tresses of the season (*Spiranthes cernua*), Missouri coneflower (*Rudbeckia missouriensis*), late boneset (*Eupatorium serotinum*), more slender false foxglove (*A. tenuifolia*), beeblossom

(*Oenothera gaura*), stiff-leaved goldenrod (*Solidago rigida*), compass plant (*Silphium laciniatum*), sawtooth sunflowers (*Helianthus grosseserratus*), American bluehearts (*B. americana*), and blanketflower just going to seed (*Gaillardia aestivalis*). Eventually we found the star of the show, Snow-on-the-prairie (*Euphorbia bicolor*), and it was incredible. It was growing so thick in places it really did look as though the prairie was covered in snow. Everyone just stopped and went silent and took in the beautiful scene.

We reached another woodland area with some oaks and hickories, where we found the uncommon nutmeg hickory (*Carya myristiciformis*) with frostweed (*Verbesina virginica*), flowering dogwood (*Cornus florida*), black locust (*Robinia pseudoacacia*) and heartleaf noseburn (*Tragia cordata*) underneath.

Everyone agreed the flowers had been beautiful, but the heat was now an annoyance and it was time to head back to the hotel to clean up for lunch before the afternoon's field trips!

Geophytes

By Nate Weston

It's almost that time of year again! As eager gardeners pore through seed catalogs and ponder this year's projects, the earliest of the spring bloomers are getting ready to emerge from their wintry slumber, poking their heads up once again for the sunlight necessary to complete their reproductive cycle. Some of the first plants to break their winter dormancy and emerge are the geophytes, the "earth-loving" plants. The term geophyte entered the botanical lexicon around 100 years or so ago, to describe plants which retreat under the soil when environmental conditions are unfavorable. These plants are the early birds, typically completing their entire reproductive cycle before most other plants have started to truly "wake up" from their winter dormancy. Living on the edge like this does offer some new challenges: bitter cold, frosts, fires, floods, the occasional snow or ice storm, short growing window, and herbivores, ravenous from the dark winter months with limited forage, make for a tough ecological niche to fill, but the geophytes are incredibly adapted to meet these challenges and even thrive!

Many members of the Iridaceae, Liliaceae, and Orchidaceae families are geophytes. Irises, Daffodils, Tulips, Gladioli, Hyacinths, Orchids, Crocus, and countless more species have been popularized through for-

mal gardens and found throughout the world, but many such geophytes can be found in your nearby woods if you know where, and when, to look. An old professor once told me "the trick to finding something isn't looking for it, it's looking for where it lives." In that case he was talking about snakes and lizards, and while he was known for clambering up muddy stream banks with a snake in one hand and a snapping turtle in the other, fortunately plants don't



Prairie trillium (Trillium recurvatum). Photo by Nate Weston, taken March 24, 2019 at Bona Dea Sanctuary, Russellville, AR.

move quite as much as critters and are perhaps a little more predictable. Many geophytes in Arkansas can be found buried under leaves and preparing for the warm rays of early spring: trout lilies, mayapples, bloodroot, orchids, Solomon's seal, dutchman's breeches, trilliums, the humble spring beauty, and many others. Often, you'll find geophytes at the base of trees, nestled around the protective and cool offered by cobbles and boulders, or growing in abundance along the floodplain of small streams. An established population

of trout lilies can carpet a woodland floor, their dappled leaves and bright flowers making quite a sight!

These plants, commonly called "spring ephemerals" for their relatively short appearance in spring, patiently bide their time, preparing through the heat of summer and cold of winter, launching into a flurry of activity in the spring. Though appearing dormant and inactive in the spring, geophytes spend the cold months of January and Febru-

ary developing underground resource networks and an extensive bank in which to store them for later use. These banks usually take the form of a bulb, corm, crown, tuber, rhizome, or other storage organ and are packed with everything the geophyte needs to springboard into action when the conditions are right.

Geophytes have two growing phases: hypogeous and epigeous. The hypogeous, or "belowground" phase, occurs through fall and

winter, when the geophyte sends out roots to collect nutrients and store them away for spring in its bank. At the same time, the geophyte is developing the structures—stems, leaves, and flowers—necessary for the next phase while safely tucked away belowground. The epigeous or "aboveground" phase occurs in spring when soils warm. At this point, these amazing plants launch into action, sending out leaves and flowers, often first seen as tiny, bundled stems poking up from the ground. Many geo-

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phytes, such as bloodroot and mayapple, keep their young foliage tightly bundled to avoid being damaged as they punch through soils compacted over winter. As temperatures rise and other plants begin to leaf out and take the available sunlight for themselves, the geophytes slowly fade back. However, being the thrifty survivalists they are, they first recover the energy in their leaves and store it back in the bank for next spring.

Geophytes are indicators of low disturbance and can be something of a barometer for the type and intensity of disturbance in an area. Soil disturbances such as plowing are catastrophic to these plants and can completely exterminate an entire community. The general abundance and diversity of geophytes can indicate a variety of ecological problems.

Many geophytes take up to eight years to flower, causing them to have a very limited capacity to recover from disturbances. One of the biggest challenges facing many species is the abundance of whitetail deer in the novel ecosystems of today. Without the historic “top-down” ecological pressures like wolves, bear, and hunting by Native Americans, populations of whitetail deer have exploded and, coincidentally, the proliferation of exotic plant species has had a catastrophic impact on most populations of geophytes. Many exotic plants, especially evergreen and semi-evergreen shrubs, directly compete with geophytes for the already limited sunlight. Intense browsing pressure by deer, often made ravenous by the dearth of forage material in the dense, brooding forests found near population centers, can also have a profound and immediate impact on populations of geophytes.

Many a native plant enthusiast or botanist has revisited a healthy population of Trilliums, only to find their stems snipped clean. Without alternative food sources like grasses and forbs, deer rely largely on mast feed to sustain them through winter. By the time spring comes around and geophytes begin their epigeous growth, starving deer greedily munch them as soon as they emerge. With increasing average temperatures, volatile weather, proliferation of invasive species, grazing by whitetail deer, feral hogs, theft, and the ever-increasing challenges of conservation in a novel landscape, the future for many geophytes is uncertain.

Keep your eyes open for these incredibly adapted wonders this spring and think of the challenges these incredible plants face and overcome on a yearly basis. You’ll have a whole new appreciation for these little wonders!

Letter to the Editor:

Quite a few years ago, the last time ANPS met in Jasper, Carl Amason gave me two potted Dwarf palmetto, *Sabal minor*, I assume. Carl said he didn’t see any reason why they wouldn’t survive here in the Ozarks. I planted one on our property in the floodplain of Webb Creek, but have never been able to find it again. The other I planted on the woods’ edge near our house in Erbie. It has survived for years with only a small partial leaf. Last year it made slightly more progress, as the photo shows.

I am happy to have this living memorial to Carl. While not an Ozark native, (neither am I) it is found in many southern Arkansas counties. Perhaps it will thrive as climate changes.

Pam Stewart

Dwarf palmetto, *Sabal minor*. Photo by Pam Stewart.



Buffalo River Trail, Pruitt to Ozark

By Nate Weston

The OCANPS held its Fall Retreat at Harmony Mountain near the town of Deer, and several members enjoyed a brisk walk along the Buffalo River. Attendees included Burnetta Hinterthuer, Sho Nagayama, Steve Holst, Eric, Angela, and their daughter Arrow Fuselier, Deb Bartholomew, Janice LaBrie, Ginny Masullo, Steve Smith, Laura Villejas, and Nate Weston. We started the hike at the Buffalo River Trailhead at Pruitt, where Burnetta showed us some Alabama snow wreath (*Neviusia alabamensis*). While the snow wreath wasn't in bloom, we were still impressed to see such a beautiful and uncommon plant so close to the trailhead. Unfortunately, common hibiscus (*Hibiscus syriacus*, the Rose-of-Sharon or althea of gardens) was also abundant. As we made our way along the terraces and benches of the trail, we saw white rattlesnake root (*Nabalus albus*), deerberry (*Vaccinium stamineum*), bluestem goldenrod (*Solidago caesia*), wreath goldenrod (*Solidago petiolaris*), downy ragged goldenrod (*Solidago nemoralis*), several asters including Drummond's aster (*Symphyotrichum drummondii*), and sharp-lobed hepatica (*Hepatica acutiloba*). Musclewood (*Carpinus caroliniana*) and American hop-hornbeam (*Ostrya virginiana*) were fruiting and in abundance here, offering great comparison for these two often-conflated species. A few leatherwood (*Dirca palustris*) were also seen here, Burnetta demonstrating the pliability of their green stems, the feature from which this species gets its name.

Though we were too late in the year to see the spring flowers, the north-

facing slopes above the trail are home to celandine poppy (*Stylophorum diphyllum*), wild ginger (*Asarum canadense*), tall bellwort (*Uvularia grandiflora*), Dutchman's breeches (*Dicentra cucullaria*), lady's slipper orchid (*Cypripedium sp.*), and puttyroot orchid (*Aplectrum hyemale*). Further down the trail we encountered some truly impressive common witch-hazel (*Hamamelis virginiana*) in bloom, with the largest being well over 12 ft. in height and resembling more tree than shrub. Just west of an old foundation, we encountered a sizable grove of healthy Ozark chinquapins (*Castanea ozarkensis*) which looked magnificent with their golden foliage backdropped against the brown of the autumn woodlands. Once we realized they were the only tree with foliage attached, we were impressed at the number of seedlings and young trees present. The tallest one we encountered was nearly 30 ft. tall.

Past the chinquapin grove we forded a small stream and discovered a small population of agueweed (*Gentianella quinquefolia*) and a small glade area. By the time we reached the highest elevation on the trail, the moist, fertile slopes transitioned to dry, open woodland savanna with dense patches of grasses under a canopy of white oak and patches of sassafras. Stands of silver plumegrass (*Saccharum alopecuroides*) waved amongst the trees and a carpet of early lowbush blueberry (*Vaccinium pallidum*) blanketed the ground, especially where sunlight was plentiful. Just before we started descending, we encountered a small population of straw-berry bush (*Euonymus americanus*) in fruit and more puttyroot orchid.

As we descended the trail, gradually approaching the Jasper Campground, we began seeing more and more pawpaw (*Asimina triloba*) trees and black tupelo (*Nyssa sylvatica*).

At many points the Buffalo River was visible from the trail, and the hike was exceptionally pleasant. This region is indisputably one of the most scenic locations in the United States, and the efforts amongst various conservation groups and individuals championing for the preservation of the vistas like those we saw on this hike are invaluable for future generations to appreciate these natural treasures.

Audubon Arkansas and four Audubon chapters have started the process to have the week of April 20, 2020, be proclaimed "Native Plant Week" at state and municipal levels. This is part of National Audubon's Plants for Birds campaign. Proclamations made across the country will act as a spark for more public support for native plant gardening, habitat management, and ordinances.

Audubon Arkansas will make the request of Governor Hutchinson. Audubon Society of Central Arkansas, Northwest Arkansas Audubon and Tex-Ark Audubon will work with their mayors, while Hot Springs Village Audubon turns to their Property Owners' Association.

Audubon would love to have support from our fellow native plant enthusiasts in Arkansas Native Plant Society, Arkansas Master Gardeners, and Wild Ones. This could include attending a city council meeting to show support for the proclamation, being at a signing ceremony, or promoting Native Plant Week in April.

If you want to know more, email Dan Scheiman at dan.scheiman@audubon.org.

Ross Foundation Field Trip Report

By Virginia McDaniel

Along the western boundary of the West Gulf Coast Plain and the southeastern extent of the Ouachita Mountains is a linear band of uplifted igneous infused shale. On this unique geology grows a rare plant community that contains a host of rare plants including the federally threatened Missouri bladderpod (*Physaria filiformis*). This shale glade community continues parallel to Arkansas Highway 84 from Bismarck to Malvern. During the Fall ANPS meeting we had the opportunity to visit an intact, high quality shale glade that is being restored and conserved by the Ross Foundation.

The Ross Foundation was founded in 1967 by Ester Clark Ross and her daughter Jane Ross, for the purpose of managing timberlands for conservation and administering any revenue generated for philanthropic grants to people in Clark County. It began with 18,000 acres and over the years additions were made from various smaller tracts and a large contiguous tract of land from International Paper Company. Today the Ross Foundation manages over 60,000 acres of pine-hardwood forests and woodlands and unique shale glades. The Foundation works closely with Arkansas Natural Heritage Commission and Arkansas Game and Fish Commission in their conservation management and restoration efforts.

Mark Karnes, Director of Operations for the Land Management staff of the Ross Foundation, led the group on a tour of the glades and woodlands with the botanical assistance of Susan Hooks and Virginia McDaniel.

He discussed the importance of fire in maintaining glade and woodland plant communities as well as the history of the foundation and the history of the land, even pointing out an old civil war era grave. His breadth of knowledge encouraged us to think about more than just plants for a brief time. But soon our magnetic urge to look at plants took over and we were thankful for Marks's knowledge of the hidden botanical treasures within the Foundation's boundaries.

Butterflies preparing for winter. Photo by Donna Hanke.



Despite the lateness of the season we were able to see a variety of glade-specific plants, some of them in flower. While the prized Missouri bladderpod was long gone, we did see *Grindelia lanceolata* (gumweed) with its gummy bracts; *Eriogonum longifolium* (umbrella plant), a distinctive plant with stems resembling the ribs of an umbrella; and the *Opuntia* sp. (prickly pear cactus), which is often abundant in glades. As we traveled through the glade and into the adjacent woodlands we saw *Hypericum drummondii* (nits and lice), *Diodia teres* (poorjoe), *Phemeranthus* sp. (fame flower), *Leptopus phyllanthoides* (maiden bush, buckbrush), *Thelesperma filiformis*

(greenthread), and *Tricostema brachiatum* (flux weed, false pennyroyal). The area was alive with butterflies and insects and folks took the opportunity to take some photos.

We had great and varied discussions about glades and the species associated with them: why *Diodia teres* is called poorjoe and its association with dry, poor soils, like glades; the often obscure succulent basal leaves of fame flower that point outward; how the time of day a plant flowers helps in the identification of the species. Buckbrush is a small woody shrub in the Spurge Family (Euphorbiaceae) often found scattered around the edges of the glade. Susan said "There is some *Andrachne phyllanthoides*!" to which Virginia responded "No, it's now *Phyllanthopsis phyllanthoides*, Susan." But as we wrote this article we realized we were both wrong. The name has changed AGAIN to *Leptopus phyllanthoides*. Or maybe not. It's a hard job keeping up with the nomenclature.

In the afternoon auto tour Austin Klais and Virginia McDaniel saw a few additional species, including *Iva annua* (sump weed), *Brickellia eupatorioides* (false boneset), and *Persicaria lapathifolia* (curlytop knotweed) which was a county record! In addition, *Cornus foemina* (swamp dogwood) was found along a small stream, and *Aureolaria grandiflora* (large-flowered fox-glove), a partial root parasite which gets nutrients from the roots of trees, was also in the area.

The day was full of discussions of the Ross Foundation and its history and the unique plants found in the area. As usual the fall field trips have limited flowering species but include unique areas with a lot to tell. It was a great day!

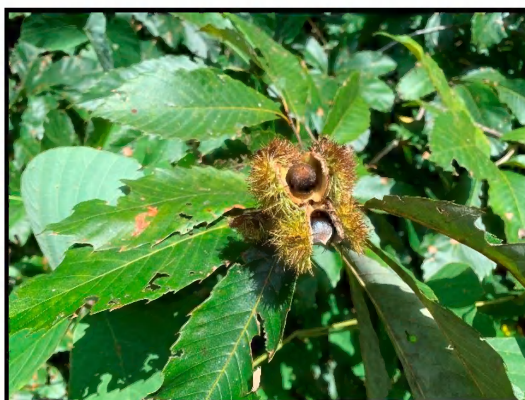
Searching for Ozark Treasure: Collecting *Castanea ozarkensis* seeds for the Ozark Chinquapin Foundation

By Eric Fuselier

Formerly a dominant species in the Ozark forests, Ozark chinquapins (*Castanea ozarkensis*) are a drought tolerant hardwood tree that once inhabited the rocky upper slopes and ridge tops of the Ozark and Ouachita Mountains. It is even thought that Ozark chinquapins may have once made up 20% of the forest species found west of the Mississippi River. But this all changed in the 1960's when the chestnut blight fungus (*Cryphonectria parasitica*) eventually reached the Ozarks. Within a decade, the Ozark hills were littered with the dead, rot-resistant carcasses of what were once mighty Ozark chinquapin trees that had reached heights of up to 65 feet. Many of the older folks who grew up in the Ozarks enjoy reminiscing on the faded glory of this Ozark treasure, speaking fondly of the delicious nuts that were once plentiful throughout these hills.



The leaves of the Ozark chinquapin are simple and alternate, between 5.5" and 9.25" long, and with coarse, sharp teeth along their margins. When trees are young, the bark of Ozark chinquapins is smooth with silvery colored markings. However, after approximately 13 years they begin to develop broad flat ridges that run parallel to each other along the length of the trunk. The twigs are smooth and have white pores, and the leaf buds are egg-shaped, somewhat flattened, and dull-pointed.



Blooming from late May to early June after the threat of the last frost has passed, these monoecious trees are self-incompatible and require at least two trees for effective pollination. Pollinated by both wind and insects, by late-September or October the flowers have been transformed into prickly burs which contain the fully developed seeds inside. Because the trees continue to grow after they have flowered, clusters of 5-10 burs can be found about a foot away from the end of the branch. Each bur contains a single nut, although on rare occasions a bur may produce more than one nut.

Chestnut blight fungus (*Cryphonectria parasitica*) is a member of the Ascomycetes group of fungi—the same group causes Dutch elm disease and oak wilt. *C. parasitica* can infect any part of the

tree's trunk or limbs, gaining access into the tree's living bark tissues through wounds created by insects, or through splits and cracks in the bark at a branch node caused by constant sway and growth of the limb over time. Once the fungus penetrates the bark, the threadlike filaments begin spreading throughout the tree, and a raised or sunken canker is formed. Once the infection reaches the vascular cambium and functional xylem and phloem, the transportation of nutrients and water to areas both above and below the canker is severed. When this happens, growth is restricted, leaves turn brown and eventually die, and the stem/trunk above the canker dies. When the fungus prepares to reproduce, it erupts through the older portions of the canker as bright orange or yellow fruiting pimples called stromata, each about the size of a large pin head.

A mature Ozark chinquapin that has become infected may have one or many cankers deforming its bark. At first, the tree dies above the canker, killing the top completely. However, because the fungus does not affect the root system, the long-lived Ozark chinquapin can continue to produce new sprouts from their stumps for many years after the above-ground portion of the tree is killed. In fact, most of the Ozark chinquapins alive today exist as root suckers that re-sprout after the above-ground portion of the tree dies back down to the ground. These blight affected sprouts typically die back before becoming sexually mature, and thus the blight-affected trees produce little to no seeds and are unable to repopulate the species.

However, while rare, there are still

(Continued on next page)

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large trees throughout the original range of the Ozark chinquapins that have not succumbed to the blight. Stephen Marquardt of Washington County came across two such trees more than a decade ago while wandering the remote roads of Washington County. Realizing that there was something special about these two trees in particular, Stephen contacted Steve Bost of the Ozark Chinquapin Foundation and confirmed that they were indeed Ozark chinquapins. Finding Ozark chinquapin trees of this size is rare—they typically only occur in remote areas such as the remote part of Washington County where these trees are found.

One Saturday in late September of 2019, ANPS Ozark Chapter president Eric Fuselier, along with Eric's wife Angela and daughter Arrow, met Stephen at his house before following him to the location of these trees in hopes of collecting any ripe nuts that may be there. After following Stephen across creeks and through a network of narrow, unmaintained forest roads, they finally arrived at the location of two mature Ozark chinquapin trees growing on the north slope of a hill in the Boston Mountains of southeastern Washington County. Upon their arrival it was apparent that the future survival of these trees is threatened by a large expanse of kudzu growing next to the two Ozark chinquapins. The kudzu has already started to grow up both of the trees, and in a few years it will likely engulf both trees, thus sealing

their fate in the absence of intervention.

Shortly after arriving at the site Eric and Stephen began collecting data on both trees. The diameter at breast height (DBH) of each of the trees was calculated based on a measurement of the circumference of the trunk at 4.5 feet above the ground. Results indicated that one tree had a DBH of 6.4 inches, the other a DBH of 8.3 inches. Additional measurements of the lengths and widths of the leaves were taken, along with photographs of the trunk, branches, leaves, stems, burs, and seeds to aid in securing a positive identification.



Approximately 50 nuts were collected altogether and were sorted by the tree they originated from. These nuts were eventually delivered to the Ozark Chinquapin Foundation, an organization founded in 2007 with a goal of restoring the Ozark Chinquapin back to the southern forests and woodlands by developing Ozark chinquapins that are blight resistant and then making the seed available to anyone willing to help re-

store the tree to its native forest range. For more information about the Ozark Chinquapin Foundation, you can visit their website at OzarkChinquapinMembership.org, or you can contact them by email at ozarkchinquapininfo@gmail.com.

Before reporting the location of Ozark chinquapins, it is important to be aware of some of the look-alikes with which they are often confused. Chinquapin oak (*Quercus muehlenbergii*) has similar looking leaves and is the species that is most often confused with Ozark chinquapin. However, the tips of the teeth on the leaf margins of the chinquapin oak are rounded, rather than pointed as they

are on the Ozark chinquapin. In addition, chinquapin oaks produce acorns like the other oaks, rather than spiny burs produced by members of the chestnut genus *Castanea*.

Another lookalike, the Chinese chestnut (*Castanea mollissima*), has been planted throughout the Ozarks and is also often confused with Ozark chinquapin. However, the leaf margins of the Chinese chestnut are wavy, with pointed hooks on the end

of each "wave," whereas the Ozark chinquapin has coarse teeth along the margins of its leaves. A closer look will also reveal that the bark of Chinese chestnuts has irregular ridges, as opposed to the broad flat ridges arranged parallel to one another on the Ozark chinquapin. In addition, the bur of the Chinese chestnut will typically contain 2-3 nuts, as opposed to one nut per bur on the Ozark chinquapin.

Citizen Science Participa-
tion Requested - ‘Project
Invasives’

By Susan Hardin

At the end of last summer ANPS was invited to have a representa-
tive for a new committee, ‘Project
Invasives,’ which will monitor inva-
sive plants and insects in Arkansas.
Austin Klais has volunteered to be
our ANPS representative.

Mohammad M. Bataineh, Ph.D., UA
Monticello, informed ANPS that the
Forest Health Laboratory at UAM is
overseeing this project that is par-
tially funded by the McIntire-
Stennis Program.

Existing social media and citizen
science online/app platforms will
be used. There is a web address for
plants and another one for insects.

[https://www.inaturalist.org/
projects/invasive-plants-of-the-
natural-state](https://www.inaturalist.org/projects/invasive-plants-of-the-natural-state)
and
[https://www.inaturalist.org/
projects/invasive-insects-of-the-
natural-state](https://www.inaturalist.org/projects/invasive-insects-of-the-natural-state)

Dr. Bataineh further writes, “As
part of this project, the Forest
Health Laboratory will be verifying
observations of substantial infesta-
tions and delineating infestations
in reported areas. Compiled and
verified records will be shared via

an online platform and will be acces-
sible to contributing agencies.

Given that we are all stakeholders in
reporting, monitoring, and manag-
ing invasive plants and insects with-
in the state, we invite you to con-
tribute and participate in our
efforts.”

Take a look at these websites and
you can see that lots of folks are al-
ready contributing. We hope that
ANPS folks will do the same.

Diana Souteropoulos led a trek through Terre Noire Blackland Prairie Natural Area during the Fall Meeting. Photo by Donna Hanke.



Devil's Eyebrow

Field Trip

By Laurie Scott

The morning of September 28, 2019 began cool and overcast, the perfect weather for a successful hike with interested students from Professor Kurtis Cecil's Plant Biology class, from NorthWest Arkansas Community College (NWACC). Devil's Eyebrow Natural Area, an Arkansas Natural Heritage Commission property located in eastern Benton County, was our destination. Devil's Eyebrow is rich in diverse plant communities nestled amongst glades, bluffs, and rich hardwood forests.

Professor Cecil indicated that presenting students with hiking opportunities "would allow students to view plant communities in their native environment, and learn to enjoy the outdoors." As the morning dawned cool and overcast, we began the descent into Devil's Eyebrow. While discussing the surrounding forest dominated by oak and hickory, students enjoyed finding and learning about a pawpaw patch. Many students were unfamiliar with this popular Ozark native, and finding a Pawpaw patch is always a treat!

Along the trail students learned about many different woodland and glade plants, while also helping with a small amount of seed collection. Permitted seed collection can be an important teaching tool. Beyond explaining the importance of ecotype seed preservation, many morphological differences in native flora can be examined from a seed head, particularly on the trail.

As our group hiked farther into Dev-

il's Eyebrow, the trail became increasingly wet due to seasonal rains in the days leading up to the hike. The terrain is rated as strenuous, but these hikers persevered. The question of the day became, "When are we getting to the bluffs?" It seemed as if they were just around the corner. Continuing to hike through beautiful vistas of limestone outcroppings allowed students to begin to feel the element of time moving backwards, as we continued the descent in the lowest section of the trail.

Professor Cecil holds a Master's degree in botany with focus on bryophytes, the study of non-vascular plants, such as mosses and liverworts. Mother Nature provided Professor Cecil with a beautiful example of *Marchantia polymorpha*, a liverwort common worldwide.

The soothing drip of water seeping from rocks high above and trickling over rocks at our feet, slowly lulled the group into quiet conversation and wrapped everyone in the earthen smells of the loamy forest floor. Rounding a bend in the trail, nearing our destination, students engaged in their environment were eager to learn about spotted jewelweed. After learning about the unique properties of this plant, they helped collect a few seeds in a unique and engaging manner. Students covered the seeds with small bags and gently released the seed pod. Energy stored in specialized tissues was released and the seed pods exploded on contact. This novel seed dispersal mechanism is a lot of fun. These seeds, collected by permit and obtained in sustainable quantities, will be returned to NWACC to be grown into larger populations. Ecotype seed preservation is a goal of the environmen-

tal science division, and students are given the opportunity to participate in seed collection, processing, stratification, germination and growing of multiple native plant species on the Bentonville, Arkansas, campus.

Native plants provide a multitude of ecological services, such as filtering water and, the liverworts included, helping to hold soil and prevent erosion. In some damaged ecosystems, liverworts are some of the first plant life to return to scarred, damp soils, contributing to soil stabilization. The organisms within Devil's Eyebrow depend on diverse ecosystems such as this in order to not only survive, but thrive and perform ecosystem services as they have for millennia.

When the destination is a large outcrop of limestone, it is necessary to include a mini-lecture on the geology of the Ozarks. Ryan Holland, an Arkansas Master Naturalist, brought the presence of an ancient inland sea to life, discussing the necessity of these natural resources to our ancestors and the importance of preserving them for our future generations. Students were full of enthusiasm for this new place to bring friends and roam. They were grateful for the opportunity to be led, taught, and shown the significance of a natural area with which many were unfamiliar. Professor Cecil, Ryan, and I are grateful for these students, their enthusiasm, their gracious attitudes, and infectious excitement. That is what makes leading students worth it every, single, day.

Time Traveling With Theo Witsell

By Becky and Susan Hardin



Theo talked about the flocks of screaming parrots greedily feeding on the buttonwood (sycamore) and cottonwood seeds. These par-

He explained that the rare saline grasslands still exist because of the continued use of prescribed burns, an important practice initially used by the native Americans and a requirement for many plants to survive and flourish.

Theo ended his presentation by stressing that there are no protected remnants where Nuttall spent his time 200 years ago. Biologically unique areas, age-old ecosystems, are being sold by the

How good was Theo Witsell on a Saturday night at a Fall ANPS Meeting in Arkadelphia for his premiere presentation, 'Following Nuttall'.

He was so good that four nights later a dozen or more ANPS members returned to the Clinton School to hear our same featured speaker. We wanted to hear and see this program once more, so that's how good he was!

Same as Arkadelphia, it was a capacity audience, and Clinton School staffers and volunteers frantically searched for more chairs to put up on the upstairs overlook since the main level was jam packed.

In both presentations, Theo's aim was to "provide a detailed interpretation of Nuttall's natural history observations, and discuss changes in the landscape since his trip, specifically as they relate to the ecological and biological diversity."

At our ANPS Fall Meeting, Theo introduced us to this no nonsense guy with stories and photos taken from his 1819 journal as he traveled through the Arkansas Territory.

rots were the Carolina parakeet, declared extinct over 100 years ago.

It was a sobering reality to learn that millions of acres of vast prairie, open savannah and delta had been cleared for agriculture. Only scraps remain today.

We saw maps of the Arkansas River then and now, with an overlay of what must have been the river's channel before oxbow lakes overtook various areas.

Theo provided drawings of a species that Nuttall described, and attendees will look at *Monarda russeliana* (Russell's bee balm) with new appreciation, as we now know it was named in fond memory of Nuttall's lost companion and friend, Dr. Thomas Russell.

"One of the most amazing areas in Arkansas" is how Theo describes the natural area of Ft Chaffee. "The surface-cleared areas can have a blown-up tank sitting in the middle of the rarest plants."

square foot on the south side of Ft. Smith, and, Witsell continued, "if we don't protect them now, they will be destroyed, probably gone in the next 30-40 years."

To leave you with a cliff hanger, midway through his presentation Theo said, "I'm going to find it again," referring to his 1996 discovery of the huge stack of rocks somewhere on the high bluffs of Petit Jean Mountain, a discovery that gave Theo a few heart stopping seconds when the rocks moved beneath his foot.

It was later that we read Nuttall's description: "Towards the southern extremity of the ridge which I ascended, there are several enormous masses of rocks so nicely balanced as almost to appear the work of art; one of them, like the druidical monuments of England, rocked backwards and forwards on the slightest touch."

Is it possible that Theo encountered the same natural phenomenon 177 years later?

WILL Theo return to find that same rock??

To be continued.....

A Winter Botany Walk— Because “Brown is a Color”

By Jennifer Ogle

Piet Oudolf, influential Dutch garden designer and author who designed Manhattan’s High Line Park, often reminds clients that “brown is also a color” when recommending plants that may not be very showy in spring and summer but provide interesting structure and texture beginning in fall and continuing well into winter. His words were on my mind as I drove south from Fayetteville on a recent January morning to lead a botany walk with Eric Hunt and Lissa Morrison on Lissa’s 100-acre forested property in Madison County. ANPS usually does these botany walks during the spring, summer, and early fall, searching for plants in full flower or with showy fruits (and for good reason: they’re beautiful!), but the purpose of this trip was to focus on the great amount of beauty and variation that can be seen in a dormant winter forest; to not only appreciate the many shades of brown but also to see the gray, burnt orange, dark red, black, and even white that become evident when you look more closely at bark, winter buds, leaf scars, and fallen leaves. And as a seasoned horticulturist, avid native plant gardener, and tireless proselytizer of the many benefits of using natives in landscaping, I know Lissa had another purpose in mind for this walk: to share with everyone the winter beauty of her extensive native gardens and to encourage us to plant more of these types of natives in our own gardens when we returned home.

After the 20 or so people who came out to walk with us gathered, we started the tour with a brief talk on the basics of identifying trees in winter (“Leaves leave a scar when they

fall in the fall!”). At the conclusion of the five-minute crash course that included visual aids Linda Ellis had drawn for an upcoming field guide to woody plants, we set off on the garden paths and forest roads to practice what we’d learned.

The first plants Lissa pointed out were the mountain azalea (*Rhododendron prinophyllum*) shrubs which grow wild along the road to her house and throughout much of the mesic upland forests in the area. This is the same azalea that occurs along the trail and streambanks at Kings River Falls Natural Area, just a few miles from Lissa’s place. If we had been on this tour in late April to early May, we would have quickly identified the plants by their large clusters of beautiful pink flowers that fill the air with a pleasant clove-like odor. But since it was winter, we focused on other clues like the spreading branches, scaly dark gray bark, and loose clusters of reddish brown, glandular-hairy capsules that remain on the ends of branches long after they open and disperse their seeds.

We walked along a meandering garden path around the house and noted two deciduous hollies (*Ilex decidua*) that Lissa had planted on either side, with their multiple trunks, gray bark and distinctive spur shoots. Each time we walked up to a new plant, I asked the group if it had an opposite, alternate, or whorled leaf arrangement. This is one of the first characters I was taught to look for when I need to identify a new tree or shrub, because determining leaf arrangement helps quickly narrow down the number of species choices. Speaking of whorled leaf arrangement, we next passed a button-



Jennifer Ogle points out the distinctive spur shoots on a deciduous holly shrub. Photo by Eric Hunt.

bush (*Cephalanthus occidentalis*) shrub Lissa had planted and saw that it bore mostly opposite leaf scars but also a few in whorls of three around the stem, which was grayish brown with prominent pale lenticels. If allowed to reach its full height, buttonbush can take up a lot of space at 12 feet tall and 8 feet wide with its long, arching branches. But as one of Lissa’s “well-behaved natives,” it didn’t mind being pruned to about 4 feet tall and was residing happily next to an American beautyberry (*Callicarpa americana*), another winter-showy shrub with its magenta drupes in clusters along loosely spreading stems.

Lissa took us by another large, fenced garden that was full of native perennials, vines and shrubs. She had cut most of the perennials down to around knee height and explained that after the plants have gone dormant and their seeds have been eaten by mammals and birds, it’s fine to cut them to about 18 inches tall, as overwintering insects generally stay on or in the lower stems. This is good news for gardeners who want to use natives but who prefer a neat-looking garden in winter. As we exited the garden, we passed a large

(Continued on next page)



Alan Ostner, Lissa, Jennifer, and Sophie Stephenson stand under 150-year-old white oak tree on Lissa's property. Photo by Eric Hunt.

Dutchman's pipe (*Isotrema tomentosa*) and noted its attractive, densely pubescent stems twining and vining around the fence.

We left the path, took an old logging road into the forest, and saw two oak trees growing near each other that were obviously not the same species—one had whitish, flaky bark and the other had bark that was dark gray and deeply furrowed. The oaks, with 28 native species reported in the *Atlas of the Vascular Plants*

of Arkansas, can be tough to tell apart so it's useful to know a few characteristics of Arkansas' two groups to quickly narrow down the number of choices by roughly half. Using Linda Ellis's illustrations as a visual aid once again, we showed everyone three differences between the red oak group and the white oak group. Members of the red oak group have dark, thick, deeply furrowed bark; bristles at the ends of the leaf lobes (or if the leaf is unlobed, then usually with a single bristle at the tip); and acorns that grow on the previous year's branches. White oaks, on the other hand, have lighter, thinner, sometimes flaky bark; leaves without bristles at the tips of their lobes; and acorns that grow on the branches of the current year. Using this basic knowledge, we determined we were standing close to one of the red oaks. We looked up higher on the trunk and saw the bark had developed alternating vertical lines of light gray and dark gray, and this told us we were looking at a northern red oak (*Quercus rubra*). The other tree had whitish, very flaky bark, and after we saw that the fallen leaves had deep, finger-like lobes without bristles, determined it was a white oak (*Quercus alba*).

We saw many more native trees and shrubs as we walked through

the woods and back to Lissa's house, including a common witch-hazel (*Hamamelis virginiana*) with last year's capsules persisting in clusters, a large red maple (*Acer rubrum* var. *rubrum*) with its groups of dark red buds at the nodes of the stems, mockernut hickory (*Carya tomentosa*) bearing giant, buff-colored, hairy terminal buds, several large black cherries (*Prunus serotina*) showing off silvery-black bark, and Carolina buckthorn (*Frangula carolinianus*) with reddish brown buds at the nodes of slender branches. We also saw sugar maple (*Acer saccharum* var. *saccharum*), chinquapin oak (*Quercus muehlenbergii*), hawthorn (*Crataegus* sp.), ninebark (*Physocarpus opulifolius* var. *intermedius*), and several others. But the highlight of the walk was a beautiful, sprawling, 150-year-old white oak tree growing in an open meadow at the top of the mountain.

When we returned to the house several people accepted Lissa's invitation to eat lunch and warm up by the wood stove. She also invited us to come back for another walk in the spring, when the mountain azaleas are in full flower. I feel confident that, as willing as everyone was to appreciate the various shades of brown we saw during our winter walk, we'll be even happier to embrace pink this spring.



The group stops for a photo-op in front of Lissa's pond before heading into the woods. Photo by John Shultz.

Fall 2019 Meeting Minutes

ANPS Business Meeting Minutes September 28, 2019 Parks & Recreation Building Feaster Park 2555 Twin River Drive Arkadelphia, AR 71923

The Arkansas Native Plant Society held its Fall 2019 Business Meeting on Saturday, September 28, 2019, at 6:00 PM at the Parks and Recreation Building, Feaster Park, Arkadelphia, AR.

President Donna Hanke called the meeting to order. The Saturday field trips went really well. Donna thanked the field trip leaders for leading the various hiking groups.

Donna Hanke reported that the ANPS Spring meeting will be held in Bentonville, AR May 15-17, 2020.

The minutes of the Spring business meeting and the financial report were published in Claytonia. Rae Grasso moved that we accept the minutes of the Spring Business Meeting as published and Jennifer Ogle seconded the motion. The motion carried.

Donna Hanke said that two members had been nominated to serve on the Board and those nominations needed to be approved by the membership. The Board recommended to the membership that Margaret Lincourt continue to serve as Secretary for 2020-2021. The Board also recommended Eric Fuselier to serve as Vice President for 2020. Eric is an environmental scientist and President of Ozark Chapter of ANPS. Isaac Ogle moved that we approve Margaret Lincourt as Secretary and Eric Fuselier as Vice President. Alan Ostner seconded the motion. The motion passed.

Donna Hanke said that the Drew County Master Gardeners' grant request had been approved for \$500.

Donna Hanke asked Diana Soteropoulos to tell the members about the grant request submitted by Arkansas State University for the purpose of imaging

herbaria at Henderson State University. Travis Marsico and George Johnson received grant in 2014 to image the eight herbaria collections in Arkansas containing over 200,000 specimens. The last remaining collection is located at Henderson State University. Diana and Travis were now trying to finish the project and they requested \$1500 for the project. Diane said that the \$1,500 would cover a part-time student supported by Henderson State through December. The student will not completely finish the imaging by December but work will continue with other work study funds next year. The Board recommended that ANPS award Arkansas State University \$1500 to continue work on the project. Ann Gordon moved that we approve the grant request from Arkansas State University for \$1500. Sarah Geurtz seconded. The motion passed.

Donna Hanke asked Jennifer Ogle to tell the members about the grant request from the City of Fayetteville for the Spring Street Parking Deck Native Plant Pollinator Raingarden. The Board recommended that members award the City of Fayetteville \$1500 for the parking deck pollinator garden project. Jennifer said that the grant application was for \$5000. The City was going to remove the current plantings and replace them with a Native Plant Pollinator Raingarden located in a very large, highly visible, high traffic area. Jennifer explained that the grant request included the removal of loblolly pines as well as replanting the area as a pollinator raingarden. The City of Fayetteville will maintain the garden. The cost of the plants is estimated at more than \$3,000. The Board supported an award of \$1500 with all of that money going toward the purchase of plants and not for plant/tree removal or site remediation. There will be a sign acknowledging the ANPS grant support at the site. The award will be

paid upon receipt of invoices for the purchase of the plants. Jack Stewart moved that we approve the grant. Virginia McDaniel seconded. The motion was approved.

Donna Hanke reported that Mary Ann King was awarded the Carl Amason Conservation Award and a monetary award of \$1000 on Friday evening, September 27th, to recognize her outstanding efforts to help all of us conserve and enjoy native plants. Jane Doty moved that we approve the award. Becky Hardin seconded the motion. The motion passed.

Jennifer Ogle announced that field trip members harvested seed from eight rows of pale purple cone flower on the Saturday morning field trip to Malcolm Farm. Jennifer said it was heartening to see such enthusiasm for the seed project.

Donna Hanke asked Austin Klais to describe the Drew County Master Gardeners grant request. The Board approved the grant for \$500. Austin described the project that involved the City of Monticello (and enthusiastically supported by the mayor,) Drew County Master Gardeners, Arkansas Game and Fish Commission, and Quail Forever. The proposal was to create native plant pollinator gardens at two locations: one in a city park and the other in a sports complex. The gardens will require minimal maintenance once established.

Donna Hanke reported that she received very positive feedback from partially funded grant requests. Grant recipients are very happy with the support provided by ANPS.

Eric Sundell asked if we had an idea of how well we had done with the previous days' receipts. Kate reported that we took in \$2787 for dues, plant sales and registrations.

There being no further business, the meeting adjourned at 6:40 PM.

Respectfully submitted,

Margaret Lincourt, Secretary

2020 Spring Treasurer's Report

			Jan - Mar 6, 2020		Proposed 2020 Budget
			Start	→	
				\$26,382.09	
	2018 Actual	2019 Actual	2020 Actual as of Mar 6		
INCOME					
Membership Dues	\$5,030.00	\$5,850.00	\$695.00		\$4,500.00
Meeting Registration	\$1,475.00	\$1,500.00	\$0.00		\$1,200.00
Plant/Silent Auction	\$2,307.00	\$2,550.00	\$0.00		\$2,500.00
T-Shirt, Hat, Book Sales	\$1,093.00	\$1,051.50	\$0.00		\$800.00
Contributions	\$868.51	\$1,472.00	\$0.00		\$0.00
TOTAL	\$10,773.51	\$12,423.50	\$695.00	→	\$695.00
EXPENDITURES					
ANPS.Org (website expenses)	-\$162.80	-\$99.00	\$0.00		-\$150.00
AR Flower & Garden	\$0.00	-\$75.00	\$0.00		-\$100.00
Claytonia (Print & Distribute 2 Issues)	-\$1,738.37	-\$2,038.57	\$0.00		-\$2,000.00
Directory (Print and Distribute)	\$0.00	-\$1,058.52	-\$1,136.75	*	-\$1,100.00
Memorial Awards (Awards/Scholarships)	-\$4,400.00	-\$3,000.00	\$0.00		-\$2,000.00
Grants/Support to Public Gardens	-\$589.28	-\$2,321.75	-\$170.00	*	-\$1,000.00
Meeting expenses (space, copies, speaker, etc.)	-\$974.87	-\$922.93	\$0.00		-\$1,000.00
Ecology Camp	-\$500.00	-\$500.00	\$0.00		-\$500.00
Bulk Mail	-\$225.00	-\$225.00	-\$235.00		-\$230.00
Supplies/postage/miscellaneous (Brochures)	-\$13.81	-\$11.34	-\$7.56		-\$300.00
T-shirts/Hats	\$0.00	\$0.00	\$0.00		-\$500.00
TOTAL	-\$8,604.13	-\$10,252.11	-\$1,549.31	→	-\$1,549.31
		Total as of Mar 6, 2020	→	\$25,527.78	-\$8,880.00

*In 2018, we moved the directory printing from December to January (expenses now post at the beginning of each year)
 There are open grants to the Drew County Master Gardeners, City of Fayetteville, SoMa, and Mid America (\$3,599.69)

Respectfully submitted by Kate Lincourt, Treasurer

*Remember to check out the full-color version of
 the Claytonia by going to the ANPS website,
<http://anps.org/newsletters/>.*

New Members (March 16 - July 29, 2019)

Simcha Bar-David (Hackett, AR)

Richard Boss (Jonesboro, AR)

Angela Danovi (Lowell, AR)

David Evans (Jacksonville, AR)

Caroline Geer (Siloam Springs, AR)

Jane Harkey (Little Rock, AR)

Deb and Michael Jolly (Mountain View, AR)

Lula Lynch (Hot Springs, AR)

John May (Maumelle, AR)

Scott Miskiel (Holiday Island, AR)

Leigh Moravec (Greenbrier, AR)

Vickie Burton Morphis (Berryville, AR)

Judy Nowak (Hot Springs Village, AR)

Leslie Peacock (Little Rock, AR)

Joan Philip (Fayetteville, AR)

Anna Riggs (Little Rock, AR)

Harvey Smith (Fayetteville, AR)

Jan Stannard (Roland, AR)

Susan Stewart (Glenwood, AR)

Jonas Ward (Fayetteville, AR)

Story Matkin-Rawn & John Hairston (Little Rock, AR)

New Lifetime Members

Brian Alexander (Little Rock, AR)

Austin Klais (Leola, AR)

Margaret Lincourt (Little Rock, AR)

Pat and Sandy Morris (Little Rock, AR)

Lissa Morrison (Kingston, AR)

William Randel (Hot Springs, AR)

Lynn Risser (Fayetteville, AR)

Michelle Wisdom (Fayetteville, AR)

Mike and Faith Shah (Eureka Springs, AR)

Joe Wankum (Conway, AR)

*****CALL TO ACTION*****

When I began working as a biologist with the Arkansas Natural Heritage Commission in 1990, one of my earliest discoveries was the first identified savanna community in the state. It covered the entire south side of Turkey Mountain within the Lower Buffalo Wilderness of the Buffalo National River (BNR). The area was brushy and degraded due to fire suppression. However, BNR reintroduced fire to the area and two prescribed burns later it was the finest looking savanna I had seen in the Ozarks either in Missouri or Arkansas. Except for the river itself, the Turkey Mountain Savanna is the most important natural community within the BNR.

I went back to the Lower Buffalo Wilderness in the autumn of 2019 intending to see how the savanna was doing. To say I was disappointed with what I found would be an understatement. The savanna does not appear to have been burned for several years. The brush and small trees are re-invading.

I have spoken with people at BNR. They would like to burn the savanna, but they seem to have gotten little support for the burn program in this area. So I'm asking you to write or email the BNR office and tell them it's important that they conduct prescribed burns at Turkey Mountain Savanna.

Letters may be sent to:

Mr. Mark Foust, Superintendent

Buffalo National River

402 N. Walnut, Suite 136

Harrison, AR 72601

Emails may be sent to: www.nps.gov/buff/contacts.htm

Thanks for helping to protect this valuable plant community.

John Logan,

Master of Science in Ecology & Evolutionary Biology, Iowa State

ANPS Spring Meeting Cancellation!

Due to the current situation with COVID-19, the Board of Directors has voted to cancel the planned May 15-17, 2020 ANPS Spring Meeting that was to be held in Cave Springs, Arkansas. While we will miss gathering together with botany-minded friends from across the state, we do not feel that it is worth the risk to ANPS members health to meet at this time.

Additionally, all field trips schedule from now through June 1, 2020 have also been cancelled. Please check the ANPS website, <https://anps.org>, for availability of any field trips after June 1, 2020.

Everyone stay safe and don't go out any more than you need to.

Co-Presidents,
Becky and Susan Hardin



**Save the Date! ANPS Fall Meeting:
Stuttgart, September 18-20, 2020**

2019 Fall Meeting in Arkadelphia

Photos by Michael Weatherford





ANPS MEMBERSHIP FORM

www.anps.org

Membership Categories

- ☐ \$ 10 Student
☐ \$ 15 Individual
☐ \$ 20 Supporting
☐ \$ 25 Family
☐ \$ 30 Contributing
☐ \$150 Lifetime (age 55+)
☐ \$300 Lifetime (under age 55)

Application Purpose

- ☐ New Member
☐ Renewal
☐ Address Change
☐ Opt out of receiving a paper copy of the *Claytonia* newsletter

Name

Address

City State Zip

Phone Email

Please mail this completed form with a check made payable to the Arkansas Native Plant Society to:

Katherine Lincourt, Treasurer
2625 Charter Oak Drive
Little Rock, Arkansas 72227

For other membership questions, please contact:

Virginia McDaniel, Membership Officer
anps.membership@gmail.com
(828) 545-2062

The Arkansas Native Plant Society is a non-profit organization.



Claytonia

Spring 2019
Newsletter

Your dues status is on your mailing label.

On the mailing label there will be a number, for example, "19", and this indicates that your dues are paid through 2019. (Life members will have an "LF" on their label).

To renew your membership, please fill in the application for membership, changes of name, address, e-mail or telephone number and mail your dues to the Treasurer:

Katherine Lincourt, Treasurer
2625 Charter Oak Drive
Little Rock, Arkansas 72227

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President's Message

So...the Hardin sisters were tasked with writing their first Presidents' message and were not sure what that message would be, but after sitting and talking, we think that there are so many good things about ANPS that ALL of us need to crow a bit about this enjoyable group to which we belong.

First, bragging rights go to our sturdy field trip leaders who readily volunteer and are out ready to go early in the morning or on hot afternoons. They're smart, enthusiastic and do a marvelous job to educate and make it fun all the while. Last year, despite floods in the spring then a flash drought in the fall with unseasonably hot and dry weather, our field trip leaders made a go of it and excelled.

Other reasons to crow are our officers both past and present, and to the caring many who continue to contribute to keep ANPS up and going. Thanks to all who've done their part to make ANPS such a viable group, and what's more, we're a growing group! This year when the directory was printed there were so many additional members that listings by towns had to be omitted, but hopefully this helpful section will return in the future. Welcome new members—we're very happy to have you with us!

We're very pleased with two new initiatives involving ANPS. The first is a citizen science project that was begun in the summer of 2019, Project Invasives. This is an ongoing project conducted by Forest Health Laboratory at UA Monticello that compiles invasive plant and insect observations/records throughout the state. Austin Klais, President-Elect, represents ANPS with this new project.

The ANPS Education Committee is the second initiative. Composed of conservation-minded professionals in NW Arkansas, this group of about six plans to target and guide regional decision makers and the people who shape urban landscapes with the use of native plants. This will begin in NW Ark. and eventually expand throughout the entire state.

Finally, we're proud that ANPS is promoting sustainability and awareness of conservation issues not only during our meetings, but hopefully, in our daily lives. For a start, we are pushing to phase out single-use plastics, containers, bags, straws, and also the use of styrofoam. Many things can no longer be recycled and if not readily biodegradable, these plastic items remain in the landfill or wherever for decades. So, not only are we concerned with the conservation of our native plants, but also the conservation of our environment.

This marks the beginning of year 40 for ANPS and we feel confident that our group continues to meet the objectives as stated in the ANPS Bylaws: to conserve, study, enjoy, educate and publish related information that promotes Arkansas native plants.

Sharing the enthusiasm for our native plants,
Susan and Becky Hardin

ARKANSAS NATIVE PLANT SOCIETY

Membership, Virginia McDaniel
833 Bellaire Drive
Hot Springs, AR 71901

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CLAYTONIA

Newsletter of the Arkansas Native Plant Society

Volume 40, No 2
Fall 2020

Special
Feature

Linda Ellis, 1951-2020

Enjoy a look back at one of the many wonderful works of art that Linda Ellis created and donated to the Arkansas Native Plant Society over the years. Rest in peace Linda, your work is done.

Proposed Bylaw
Revisions
Pages 11-15

New Members
and Life Members
Page 18

2020 Fall
Treasurer's Report
Page 20

Membership
Application
Page 21

President's
Message
Page 22

Cast Your Ballot
Page 23



Solidago petiolaris, downy goldenrod, is one of 28 species of goldenrods, all natives, growing in Arkansas. Eight of those species are uncommon enough to be of special interest to the Natural Heritage Commission, while several are widespread and abundant, documented in almost every county in the state. Downy goldenrod occurs in our Highlands and Coastal Plain, from open woodlands to fields and roadsides. With its unusually large flowering heads, it is one of our showiest goldenrod species.

The genus *Solidago* comprises 80-100 species—almost all of them North American—that bloom in late summer and fall, and decorate the woods and fields with some of the last color of the season. They are lovely to look at and, even for the experts, hard to identify to species!

Memories of Linda Ellis

By Theo Witsell

The Natural World lost another good friend and ally recently with the passing of long-time ANPS member Linda Ellis. Linda was a person of many talents but was widely known as a gifted botanist and botanical illustrator. Though she lived just over the line in Missouri, we considered her an honorary Arkansan and one of the real experts on the flora of northern Arkansas and of the Ozarks at large.

Linda was at the top of her field as a botanical illustrator and contributed to a wide variety of scientific endeavors. She did many of the illustrations to the *Steyermark's Flora of Missouri* volumes (most notably illustrating almost the entire composite family). I had the good fortune of collaborating with her on several projects for the Arkansas Natural Heritage Commission including our Natural Communities of Arkansas Poster series, which is now available for download as a series of printable PDFs:

<https://www.naturalheritage.com/Education/natural-communities-poster-series>.

(Continued from previous page)

She also provided the technical illustrations for scientific papers describing two new-to-science plant species from Arkansas: Pelton's rose-gentian (*Sabatia arkansana*) and sandhill ground-cherry (*Physalis macrosperma*):

Paper describing Pelton's rose-gentian: <https://www.naturalheritage.com/literature/126744/Sabatia>

Paper describing sandhill ground-cherry: <https://journals.brit.org/jbrit/article/view/824/765>

Linda was generous with her time and talents when it came to her involvement in both the Arkansas and Missouri Native Plant Societies. She was a gifted writer, interpreter, and educator and led many wonderful field trips for both organizations. When I served as the editor of the *Claytonia* she was a regular contributor. She wrote for the newsletter and donated beautiful custom illustrations to the ANPS each year for the cover of the directory. She and I would collaborate on these covers, working together to select an interesting species, which she would draw from specimens and photographs while I prepared a caption with some background on each species.

Linda was also a top-notch botanist and would regularly teach the pros a thing or two in the field. I remember being on an ANPS field trip to Sugarloaf Prairie in Boone County back in October of 2002 when Linda pointed out some very interesting goldenrods in a dolomite glade which she correctly identified as Gattinger's goldenrod (*Solidago gattingeri*). No one else in the group, which included some of the top botanists in Arkansas like Eric Sundell, Carl Amason, Bill Shepherd, and others, knew this plant. We made a couple of herbarium specimens to document the occurrence, which as far as we knew at the time was a new species to the flora of Arkansas. Years later an earlier specimen was discovered at the U of A Herbarium (collected in Baxter County in 1945) but that specimen had been misidentified as another species. Linda's 2002 find got this globally rare plant on our radar at the Arkansas Natural Heritage Commission and it was added to the state rare plant list. Since we started searching for it, we've found a few more sites, all in high-quality Ozark dolomite glades. Outside of Arkansas it is known only from calcareous glades in Missouri and Tennessee.

Linda made another significant discovery of a new plant for Arkansas in 2008, this one a non-native invasive called pincushion-flower (*Scabiosa atropurpurea*). She found a large stand along a roadside in Carroll County



Linda Ellis in her element with camera at her side.

but didn't recognize it. She sent specimens to me for identification, along with a note that it appeared to be invasive. I had no idea what it was, and the identification was challenging. Finally, after an especially frustrating afternoon at the microscope, surrounded by a mountain of reference books, I figured out what it was. Linda made an excellent set of illustrations, which accompanied an article on the species that she wrote for the Spring 2009 issue of the *Claytonia*: <https://arkansasnativeplant.files.wordpress.com/2011/08/spring-2009-claytonia.pdf>.

I, like many of us in the ANPS, will miss Linda's good company in the field, her wonderful illustrations, and her cheerful personality. I'll also miss her willingness to collect and send herbarium specimens to document interesting finds, and the impressive knowledge that she had and so freely shared.

Obituary

Linda Susan Ellis, 68, passed away peacefully on March 3, 2020 at her home in Springfield. She was born June 27, 1951 in Kansas City, Missouri and graduated from Southwest High School. Following high school, she attended the University of Tulsa and subsequently graduated from the University of Missouri-Kansas City.

Linda was an active member of the Springfield Plateau Master Naturalists since 2011, as well as The Idalia Society of Mid-America Lepidopterists, the Ozark Native Plant Society, the Arkansas Native Plant Society, and the Missouri Archeological Society. An amazing and knowledgeable botanical and natural science illustrator, she

(Continued on next page)

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drew many of the illustrations for Steyermark's three-volume "Flora of Missouri", as well as the early American projectiles for Jack Ray's "Projectile Point Types in Missouri and Portions of Adjacent States". In addition, she drew for many other organizations and publications in natural history and botanical field studies throughout the Ozark regions of Missouri and Arkansas where she had the uncanny ability to connect the wildlife, botany and natural elements of the locale. Her spirit, sense of humor, knowledge, and wit will be missed by all who knew her.

Linda is survived by her partner, Tom Berger, of the home. Those wishing to remember Linda in a special way may make gifts in her memory to the Butterfly Bistro Garden at the Bill Rosten Native Butterfly House in the Springfield Botanical Garden.

A pair of Twig Girdlers (*Oncideres cingulata*) on cut-off Hickory twig. Persimmon, Elm, etc. can also be girdled. "Chew marks" are shown below the cut-off. The hole (lower down) may be for "egg planting". Females lay several eggs per twig. Larvae and pupae remain and eat within the twig overwinter, spring and summer before emerging as adults in the fall. Photo by Sid Vogelpohl.



Grace McCarthy

Delzie Demaree Research Grant

Arkansas State University

Graduate Student, Biology

Research project to compare plant species composition and non-native/invasive plant cover on eight islands in the Mississippi River above and below where the White River and the Arkansas River enter the Mississippi River.



Caitlyn Sims

Delzie Demaree Research Grant

Arkansas State University

Graduate Student, Botany

Research project to determine if flowering times shift later in the year with higher levels of Mississippi River and if flooding and drought impact a plant's ability to flower.

Finding Ouachita Twistflower

By Virginia McDaniel

In early May 2020, I went on a collecting trip to the South Fourche Botanical Area (SFBA) in the Ouachita National Forest just north of Jessieville. For the last five years I have been working on a botanical inventory of the SFBA trying to get out once a month to each of the different community types. Today I was headed to the steep south-facing sandstone glades above the South Fourche LaFave River. I'd visited them in the fall but never the spring. As I looked down at the glade I saw something yellowish and my mind thought hoary puccoon (*Lithospermum canescens*). That would be a new species for my list and a good find, but as I scrambled down the cliff for a closer look, I found it to be just groundsel (*Packera plattensis*). Shucks! Nothing new. But then my eyes happened upon a plant about to flower—green calyx with the slightest tinge of pink and clasping glabrous leaves. But what caught my attention were the hairs on the calyx—the squamous hairs. WOW! Now this is a find!

The SFBA is located within the northern-most subdivi-



Ouachita twistflower (Streptanthus squamiformis) framed by a shortleaf pine tree (Pinus echinata). Photo by Virginia McDaniel

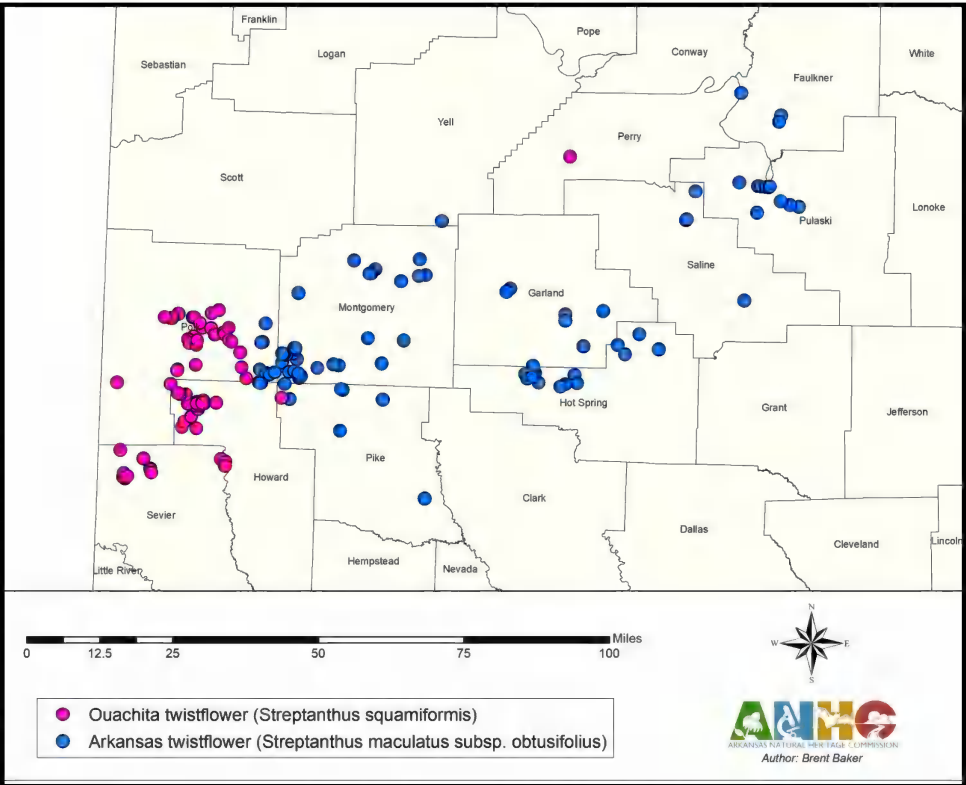


The squamous hairs on the calyx of Ouachita twistflower (Streptanthus squamiformis). Photo by Virginia McDaniel.

sion of the Ouachita Ecoregion, the Fourche Mountain Subdivision, a system of high sandstone ridges that extends from eastern Oklahoma to Searcy, Arkansas. The 2,580 acre Botanical Area was designated with the 2005 Revised Land and Resource Management Plan for the Ouachita National Forest because of its unique plant communities including glades, woodlands, river scour-prairies (rocky prairie-like areas along high-energy mountain streams), a hanging oxbow (one of the largest mountain channel scar wetlands in the Ouachita Mountains), a salt lick, and several ground water seepage areas. To date I'd tallied about 650 species, over 100 Perry County records, and added one state tracked plant (Ouachita spurge, *Euphorbia ouachitensis*) to the list that now totaled 12 species of concern. (Theo Witsell, Susan Hooks and others had found a number of species of concern during the initial inventory in the early 2000s.)

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Due to their east-west trending, the Ouachita Mountains are also known for their number of endemic species, many of which are restricted to glades, barrens, open woodlands, and river scour-prairies. And what those squamous hairs told me was that I had just found one of those endemic plants! Ouachita twistflower (*Streptanthus squamiformis*)! Ouachita twistflower is a plant in the mustard family with bright magenta flowers and clasping glabrous leaves. While there is another taxon in this genus also endemic to the Ouachita Mountains (Arkansas twistflower, *Streptanthus maculatus* subsp. *obtusifolius*), Ouachita twistflower, with its squamous calyx hairs, has a more restricted range and is of higher conservation concern (global conservation rank of G2—imperiled). Ouachita twistflower is known from western Arkansas with a very restricted range in Polk, Howard, Sevier and Pike Counties (Figure 1). This was a 50 mile range extension of a species whose entire range was only about 30 miles wide! While I continue to add new species to my list every time I journey to the SFBA, that day in May will stand out as a particularly special one.



Above: Range map of Ouachita twistflower (pink dots) and Arkansas twistflower (blue dots). Map created by Brent Baker.

Below: Ouachita twistflower (*Streptanthus squamiformis*) habitat: a steep sandstone glade/bluff. Photo by Virginia McDaniel.



ANPS Members Welcome to Attend: Arkansas Natural Heritage Commission WeDigBio On-line Event

On October 15-18, the ANHC will host its second online-only event for WeDigBio (Worldwide Engagement for Digitizing Biocollections), and we have an exciting schedule of talks and interactive sessions planned during the event! WeDigBio is an international transcription blitz, which encourages people worldwide to transcribe natural history specimens, including herbarium specimens, into a standardized digital format over a four-day period. For ANHC's event, we sponsor the Plants of Arkansas project on Notes from Nature.

While we'll miss our local, in-person gatherings at herbaria state-wide, we look forward to seeing you online during the event! If you're new to Notes from Nature, tune in to the "Notes from Nature: Plants of Arkansas Overview" talks Thursday. Interested in how transcribed data are used? Check out "Research Questions to Answer with Specimen Data," "How you can use SERNEC, thanks to Notes from Nature transcriptions," and "Using digitized specimen data for on the ground conservation in Benton and Washington Counties." Want to learn more about plants in Arkansas? Join "Glades of Arkansas," "Interesting Plants of the South Fourche Botanical Area," and "Audubon Arkansas NATIVE Project Farm tour." And there's more!

Nine botanists across the state will be presenting during the four-day event. Additional information for links to these online talks will be available on the Arkansas Native Plant Society webpage. Daily schedules will also be emailed to the Plants of Arkansas Notes from Nature group; send Diana Soteropoulos a message if you'd like to be added to this group (diana.soteropoulos@arkansas.gov). Upon request, Diana can also share a "How to transcribe" document to help you get started on Notes from Nature today! Here's the full schedule of presentations.

Thursday, October 15

10:00 – 10:30 am

Leslie Patrick, ANHC outreach specialist
"Arkansas's Ecoregions."

Leslie will cover Arkansas's six main ecoregions and explain how the designation of ecoregions on herbarium specimen labels provides valuable information.

1:15 – 2:30 pm*

Diana Soteropoulos, ANHC Botanist / Arkansas Herbarium Digitization Coordinator

"Notes from Nature: Plants of Arkansas Overview."

Diana will present an overview of herbaria and the history of plant collection in Arkansas, examples of how specimen data is used by ANHC and the scientific community, the genesis of the Notes from Nature project and its goals. She will also provide a demonstration so you can help transcribe Arkansas herbarium specimens.

*Presentation during Hendrix College's general botany class but open to the public.

4:00 – 5:00 pm

Jennifer Ogle, UARK collections manager
"Basic Plant Identification."

Jennifer will use live plant material to review how to identify plants.

6:30 – 8:00 pm*

Diana Soteropoulos, ANHC Botanist / Arkansas Herbarium Digitization Coordinator

"Notes from Nature: Plants of Arkansas Overview."

Diana will present an overview of herbaria and the history of plant collection in Arkansas, examples of how specimen data is used by ANHC and the scientific community, the genesis of the Notes from Nature project and its goals. She will also provide a demonstration so you can help transcribe Arkansas herbarium specimens.

*Presentation during Central Arkansas Master Naturalists monthly meeting but open to the public

Friday, October 16

11:00 am – 12:00 pm

Travis Marsico, Arkansas State University, Associate Chair of the Department of Environmental Sciences, Professor of Botany, Curator of STAR Herbarium.
“Research Questions to Answer with Specimen Data.”
Learn how the transcribed data from Notes from Nature is used in specific examples of research questions that can be asked and answered using images and label data from specimens.

1:30 – 2:30 pm

Jennifer Ogle, UARK collections manager
“Basic Plant Identification.”
Jennifer will use live plant material to review how to identify plants.

3:00 – 4:00 pm

Brent Baker, ANHC Botanist / Collections Manager (ANHC Herbarium)
“Glades of Arkansas.”
Brent will discuss what glades are, the different types of glades in Arkansas, and where they occur. He’ll also highlight glade plants in general and plants unique to certain types of glades.

Saturday, October 17

9:00 – 9:30 am

Virginia McDaniel, Forestry Technician and ESA Certified Ecologist with the Southern Research Station
“Interesting Plants of the South Fourche Botanical Area.”
Virginia will discuss some interesting discoveries from a botanical area on the Ouachita National Forest located in the Fourche Mountain Ecoregion.

10:00 – 11:00 am

Jennifer Ogle, UARK collections manager
“Audubon Arkansas NATIVE Project Farm tour.”
We’ll visit a 2-acre farm in the Ozarks to see 13 species of native wildflowers under cultivation. We’ll discuss the field preparation and planting process, and seed harvesting as well.

1:30 – 2:15 pm

Adam Schneider, Hendrix College assistant professor and herbarium curator
“How do plants get their names?”
Do you wonder where scientific names come from? Who gets to decide? Why do names sometimes change? What do I do if I find a new species that needs a name? Why do some plants have subspecies and others have varieties? Adam Schneider will present an introduction to plant nomenclature.

Sunday, October 18

10:00 – 11:00 am

Molly Robinson, ANHC contract herbarium researcher / field botanist
“How you can use SERNEC, thanks to Notes from Nature transcriptions!”
Learn how to search the data transcribed through Notes from Nature and find answers to purely practical or downright fun botanical questions. In this interactive demonstration, we will use SERNEC to answer several types of questions you may have if you are a plant enthusiast, a history buff, or just someone who enjoys transcribing specimen labels.

1:00 – 2:00 pm

Theo Witsell, ANHC Ecologist / Chief of Research / Curator (ANHC Herbarium)
“Using digitized specimen data for on the ground conservation in Benton and Washington Counties.”
Theo will talk about the three-year inventory project for Benton and Washington Counties in Northwest Arkansas. This project uses historic specimen data and present-day surveys to inform conservation decisions in the rapidly changing area.

(Note from the Presidents: Eric Fuselier is our new President, and although all in OCANPS know him very well, a number of us only got to see him stand up for an introduction at our very last real meeting which was Fall, 2019, in Arkadelphia. He got fast-tracked into this new spot when Austin Klais was moved up in his job.

And who to better describe him than Burnetta Hinterthuer of the OCANPS and of course, ANPS, and frequent contributor to Claytonia. Thank you, Burnetta, for a marvelous introduction to Eric!)

Introducing Eric Fuselier

By Burnetta Hinterthuer

Leaving Bentonville after school one day, I decided to stop by my favorite Japanese restaurant and enjoy a mango roll. Since I was only one person, I had to sit at the sushi bar and was enjoying the sushi-making exhibition. A young man came in and sat down on the adjoining seat. He was friendly and sociable and we started talking. It turns out that he was an environmental engineer and also a Master Naturalist. And, I had taught a botany section for the Master Naturalists the year that he had completed the course. I started talking to him about the Ozarks Chapter of the Arkansas Native Plant Society and took his e-mail address in order to forward a spring newsletter. He started showing up for hikes and was always a joy, sharing his knowledge of the natural world. In the fall of 2018, he attended our Harmony Mountain Fall Retreat. I inquired if he were interested in becoming an officer, as we baby boomers were rapidly losing energy. That fall we elected him President and were surprised at how many new opportunities he opened up for both OCANPS and the state organization ANPS. Soon he was leading hikes in the Ozarks and writing articles for *Claytonia*, delivering plant talks at public libraries in the area, presenting plant talks to nature groups such as the Ozark Society, and as a wetland specialist helping to start an annual spring workshop for the Society of Wetland Specialists.

Recently, he received the Professional Wetland Specialist certificate and works full-time at an environmental engineering firm. He is a dedicated family man and with his wife Angela teaches his daughter and stepdaughter wonders of the natural world. Between jobs, he once worked as a naturalist and teacher for Ozark Natural Science Center and remains dedicated to helping raise money for the organization. One of the workshops he offers there throughout the year helps instruct people on survival skills to use in the wild, from identifying and foraging for plants to starting fires and erecting shelters. Eric is a true Renaissance man who volunteers and con-

tributes to established and emerging conservation groups—this year, he helped to start an Ozarks Chapter of Wild Ones. He is a member and communicates with many area organizations and always shares information about the Arkansas Native Plant Society and the Ozarks Chapter.

I am so glad that I went to the sushi restaurant for lunch and met Eric that day. We are so happy that the Ozarks Chapter of ANPS that started in 1995 and is celebrating its 25th Anniversary in 2020 is looking forward to the start of another 25 years. We “baby-boomer” members are so grateful to Eric Fuselier and for his taking the helm of OCANPS, and we look forward to the coming years when we can return to in-person hikes.

Goodbye to Austin Klais

By Susan and Rebecca Hardin

At the end of June, our President-elect, Austin Klais, got a promotion in his job with Quail Forever and moved to Louisiana to become the Coordinating Wildlife Biologist in Bastrop.

We heard from Austin recently, and he reports that he’s enjoying his new position and still trying to get to meet everyone there.

*“We have been fortunate to get to work with many partner agencies already, including the US Forest Service, Louisiana Department of Wildlife and Fisheries, the Natural Resource Conservation Service, and other partners, to begin implementing additional conservation measures that will benefit wildlife and native plants in the region. I get to work with many habitats similar to AR but have also come across some plants new to me, such as *Eryngium hookeri*. Always something to learn!”*

Austin was a joy to work with, had smart ideas, was always willing to lend a hand, and in addition, had a ready smile to make any job seem like fun.

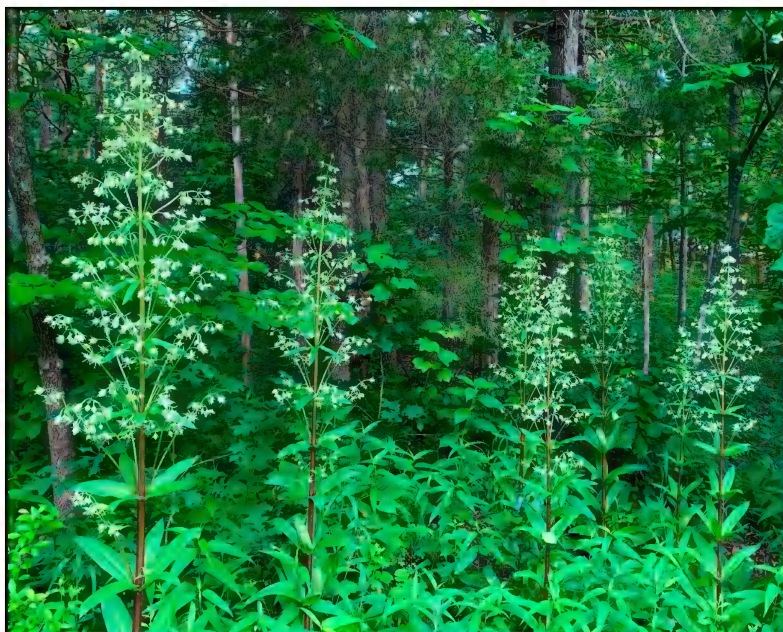
We wish you well, Life Member Austin, and expect to see you at our next in-person meeting.

Patience Pays Off: American Columbo Blooms After 28 Years

By Don Kurz, author of *Arkansas Wildflowers* and the upcoming *Wildflowers of the Midwest*.

Twenty-eight years ago, I scattered some seeds of American Columbo (*Frasera caroliniensis*) along a wooded edge behind my house in central Missouri. A couple years later, I noticed that 20-30 young plants had taken hold. Year after year the basal rosettes got larger but did not give any indication that they would be bolting and flowering anytime soon. Known as monocarpic perennials, references report that American Columbo takes anywhere from 7 to 15 years before flowering and then the plant dies, leaving the seeds to carry on the next generation. Dr. Julian Steyermark (1909-1988), author of *Flora of Missouri*, wrote that he transplanted a plant to his garden near Chicago and after 15 years, it still had not flowered. Well, after 28 years, I am pleased to report that about a third of the population bolted and flowered in late May of this year! This is where patience pays off. There are probably few growers that stick around one place for 15+ years to see American Columbo flower!

Further reading: Threadgill, Paul F., Jerry M. Baskin, and Carol C. Baskin. The Ecological Life Cycle of *Frasera caroliniensis*, a Long-lived Monocarpic Perennial. The American Midland Naturalist, Apr. 1981, Vol. 105, No. 2 (Apr. 1981), pp. 277-289.



Photos by Don Kurz.

Below left: shows two plants bolting, a taller one in the background, a shorter one in the foreground. The rest are basal rosettes that will bolt in the future.

Above: American Columbo in full bloom.

Below: Bloom details.



Tribute to the Reuters

By Burnetta Hinterthuer

In 1995, the Ozarks Chapter of ANPS was formed by a group of interested plant enthusiasts in Northwest Arkansas upon the urging of Kelly Holst of Witts Spring. She had noticed in an ANPS *Claytonia* that regional chapters were being encouraged to form throughout the state and wrote a letter to Bob Clearwater inquiring as to how to do so. Not able to drive down to central and south Arkansas for field trips on Saturdays, we were interested in forming a chapter to focus on the Ozarks Region. Seventeen people met at the Fayetteville Public Library in December, 1995, and up until COVID hit in 2020, we have scheduled spring and summer plant walks.

Mary and Frank Reuter from Berryville, were in that first group and were regulars on the hikes. In 1999, after Don Mills resigned from the Treasurer's office, Mary agreed to become the new Treasurer and kept that job through the end of 2019. For twenty years, she had the most demanding job, keeping up with new members' addresses and dues as well as the money raised at our annual Fall Retreat auction. Mary also made distributed donations that we contributed to other Ozarks conservation projects and organizations including the Flora of Arkansas, Ozarks Natural Science Center, the Buffalo River, and the Audubon Ecology Camp each summer. We were so lucky to have her volunteer for that job for so long, and we want to thank her for her service to the Ozarks Regional Chapter of ANP; her efficiency and attention to detail are much appreciated. Mary and Frank are well known in other conservation organizations as well, such as the Audubon Society. Both are involved in helping promote and raise money for the Halberg Ecology Camp at Camp Clearfork, held each June, except this year of course. Frank served in several offices with the Audubon Society as well.

For many years, Mary and Frank developed and maintained a large vegetable garden, which they have shared with all of us at the Harmony Mountain potlucks. Last fall, Mary called to inform me that they would be moving from northwest Arkansas to live closer to their daughter in Missouri. While saddened to hear they would be leaving, we were glad that they would have more opportunity to be around family. To say that we will miss them is an understatement. Their combined knowledge in such diverse fields as geology, gardening, astronomy, early history of the Ozarks, ornithology, as well as Frank's being a Middle Ages scholar and profes-

sor, helped educate and entertain us throughout the years.

We couldn't thank them in person but want to take this opportunity to formally thank Mary for her dedication to the OCANPS Treasury position and to both of them for their friendship throughout the years. We hope that you enjoy this new stage of your lives, being closer to family and making new friends.

I say this from all of us, "Thanks for being part of the ANPS, OCANPS family but mostly for being good friends."

Fred and Ginny Reuter at Harmony Mountain.



The main proposed revisions to the bylaws are as follows:

Article III – MEMBERSHIP AND MEETINGS

Added provision for membership to vote on urgent issues in the event a Membership Meeting is cancelled.

Article IV – BOARD OF DIRECTORS AND MEETINGS

Renamed Executive Board to Board of Directors, revised description of the Board's responsibilities.

Article V – ELECTED OFFICERS AND STANDING COMMITTEE CHAIRS

Added list of Standing Committees. Made Officer appointments subject to Board approval.

Changed duties of Membership Officer to include distributing electronic /written information to members at direction of the Board.

Changed election of Officers. Broke out election term as separate item and put term of office in new subsection.

Changed office tenure section to remove tenure restrictions, Officers still elected and serve at discretion of Board and Members.

Changes to make document more readable, correct titles and language to reflect the proposed changes, and to make it gender neutral.

ARKANSAS NATIVE PLANT SOCIETY BYLAWS

Revised 2020

Article I - NAME AND BACKGROUND INFORMATION

The Arkansas Native Plant Society (ANPS), a non-profit corporation, was formally organized September 20, 1980 in Mena, Arkansas. Regular meetings of the Board of Directors (Board) and General Membership (Membership) occur in the Spring and Fall each year over a weekend. Field trips are held the same weekends and throughout the year. The newsletter *Claytonia* is published in advance of the Spring and Fall Meetings. ANPS maintains a website, www.anps.org, which includes an archive of the newsletters and a copy of these bylaws.

Article II - OBJECTIVES

ANPS promotes 1) the conservation, study, and enjoyment of the native plants of Arkansas, 2) the education of the public regarding the value of native plants and their habitats, and 3) the publication of related information.

Article III - MEMBERSHIP AND MEETINGS

Section 1. Membership and Dues

- a) Membership is open to any person interested in the native plants of Arkansas, upon their application and payment of dues. It is the Member's responsibility to keep the Membership Officer advised of changes to contact and mailing information.
- b) Membership Classes with annual dues are: Student (\$10), Individual (\$15), Supporting (\$20), Family (\$25), and Contributing (\$30). Individual Lifetime membership (\$300). Individual Lifetime membership for those 55 and older (\$150).
- c) Annual dues are paid for the calendar year. Family Membership is for two adults and children under 18. A general reminder regarding annual dues will be in each *Claytonia* and on the website.

Section 2. Membership Meetings

The membership meets during one weekend in the Spring and Fall. The date, time, and location of upcoming membership meetings are reported in the newsletter *Claytonia* and on the website.

- b) In the event an in-person Membership Meeting cannot take place as scheduled and a vote by the Membership is required to transact essential business, then the Board may call for an online vote by the members of the ANPS. A majority of members voting will decide the issue.

Section 3. Quorum

The members attending the membership meetings constitute a quorum for the transaction of business. Every act or decision by a majority of the members present at a Membership Meeting will be a valid act of the Membership.

Section 4. Right to Vote

Members are entitled to one vote. Each adult of a Family Membership is entitled to one vote. Absentee or proxy votes are not allowed.

Article IV – BOARD OF DIRECTORS AND MEETINGS

Section 1. Membership on the Board of Directors

The Board of Directors shall be composed of the Elected Officers of ANPS. The Board of Directors shall have general supervision of the affairs of ANPS between its business meetings; act on behalf of ANPS Membership for business activities; make recommendations to the Membership at Membership Meetings; and conduct essential business during other times.

Section 2. Meetings

Regular Meetings of the Board are held the same weekend as the Spring and Fall Membership Meetings. Special Board Meetings may be called by the President or, in their absence or inability, by the President Elect. All members of the Board are to be notified of the date, time, location, and agenda for any meeting at least two weeks in advance. Online Meetings may be held to conduct essential business arising between Regular Meetings.

Section 3. Quorum

The presence of a simple majority of board members at a board meeting constitutes a quorum for the transaction of business. The same quorum is required for online decisions by the board. Board members serving in more than one board position are counted as one position and one board member for the purposes of a quorum. Every act or decision voted by a majority of the board members present at a board meeting or voted online, at which a quorum is present, will be a valid act of the Board.

Section 4. Right to Vote

Each board member is entitled to one vote on any motion before the Board. Board members serving in more than one board position represent one vote. Absentee or proxy votes are not allowed.

Article V – ELECTED OFFICERS

Section 1. Positions and Responsibilities

a) President

The President oversees the work of ANPS. The President receives communications and responds accordingly. The President presides at Regular Meetings of the Board and Membership. The President prepares the agenda for Regular Meetings of the Board and Membership. If a membership vote is needed outside of the regular, in-person meeting, the President communicates to the Membership the issue/issues for which a vote is needed and will coordinate this vote. The president will communicate election results to the Membership. The President automatically assumes the duties of the Nominating Committee Chair at the end of the term of office.

b) President Elect

The President Elect is in training for President and performs duties of President in the President's absence. This Officer is responsible for the planning of the Spring and Fall Meetings. The President Elect selects the meeting site, identifies field trip leaders and locations, and arranges for evening programs. The President Elect automatically assumes the duties of President at the end of the term of office.

c) Vice President

The Vice President is in training for President Elect and performs duties of the President Elect in the President Elect's absence. The Vice President publicizes ANPS activities, such as conservation efforts and approved grants. At Membership Meetings, this Officer is in charge of field trip rosters. The Vice President automatically assumes the duties of the President Elect at the end of the term of office.

d) Secretary

The Secretary prepares and maintains the minutes of Meetings of the Board and Membership and records the results of Online Meetings. The Secretary records ANPS activities, work and accomplishments. The Secretary maintains a record of the board members' Terms of Office (Section 3 below) and Tenure (Section 4 below).

e) Treasurer

The Treasurer is the custodian of the funds of ANPS. The Treasurer receives, deposits, and disburses funds. The Treasurer or a duly appointed representative must receive all funds collected or received by ANPS. The Treasurer prepares the Annual Budget (Article VII, Section 2). This Officer prepares a Treasurer's Report in advance of the Spring and Fall Meetings and as otherwise requested by the Board. The Treasurer prepares an end-of-year report to close out each Fiscal Year (Article VII, Section 1). The Treasurer responds to audits requested by the Board (Article VII, Section 6). The Treasurer files the yearly "charitable organization" IRS report and the yearly Arkansas Annual Report for Nonprofit Corporation.

f) Editor

The Editor prepares and edits the ANPS newsletter, *Claytonia*.

g) Internet and Social Media Committee Officer

The Internet and Social Media Officer coordinates the online activities of ANPS and is responsible for the operation of the website at anps.org. This Officer provides an online presence for internet access to ANPS activities, publications and archival information. The Internet and Social Media Officer is responsible for the timely publication of pertinent documents, notices, and updates about ANPS activities and also provides access to appropriate social media networks of ANPS activities and information. This officer is responsible for providing information and publicity within the social media community that enhances and supports the Objectives of ANPS (Article II).

h) Membership Officer

The Membership Officer maintains records of membership, dues paid, and member contact information. The Officer distributes electronic and/or written information to members at the direction of the Board, and provides membership statistics to the Board at board meetings.

i) Publisher

The Publisher arranges for printing and distribution of the newsletters and directory and other documents as needed.

j) Memorial Awards Officer

The Memorial Awards Officer organizes and directs the search for recipients of ANPS Memorial Awards, Grants and Scholarships (Article IX) through a Memorial Awards Committee. The Committee provides recommendations, including amounts to be awarded to each individual within the specified caps of the award, grant or scholarship. The committee may also recommend subsequent annual grants or scholarships to deserving students. This officer receives and reviews applications and provides the Committee's recommendations to the Board and Membership for approval.

k) Education Officer

The Education Officer attends Education Committee meetings, guides the committee as to ANPS bylaws, policies, and procedures as needed, reports back to the board at each board meeting and communicates with the board as necessary between meetings.

I) Immediate Past President, Nominating Committee Chair

The Immediate Past President automatically assumes the duty of Nominating Committee Chair. Consisting of other selected individuals, the Nominating Committee solicits and promotes individual members to stand for election and serve in upcoming vacant board positions.

Section 2. Standing Committees

The Standing Committees shall consist of:

- Memorial Awards Committee
- Education Committee
- Nominating Committee

Section 3. Term of Office

- a) The term of office for the President, President Elect, Vice President, and Nominating Committee Chair is one calendar year. Except for unusual circumstances, these individuals are elected to successively assume the next responsibility. At the end of the term of office, the President Elect automatically replaces the President, and the Vice President automatically replaces the President Elect. A new Vice President will be nominated by the Nominating Committee each year. The election for the Vice President is held at the annual Fall Membership Meeting. The Immediate Past President serves as Advisor to the President, and automatically replaces the Chair of the Nominating Committee.
- b) Other Officers are elected for two years at the annual Fall Membership Meeting.
- c) A newly elected Officer begins a transition period at the Fall Membership Meeting and assumes their duties at the beginning of the next calendar year. A person appointed to fill a vacant position (Section 5 below) may continue in that position past the original end-of-term of the vacating officer, if elected by the Membership to a new term.

Section 4. Office Tenure

The Members serving as Secretary, Treasurer, Editor, Publisher, Membership Officer, Memorial Awards Officer, Internet and Social Media Officer, and Education Officer may be re-elected to subsequent two-year terms for that same position, or elected to another Board position. The Members serving in these positions do so at the discretion of the Board and Membership, and their tenure in these positions shall not be limited.

Section 5. Vacancies

When the position of President becomes vacant due to resignation or other cause, the President Elect assumes that position. Likewise, should the President Elect position become vacant, the Vice President assumes that position. A vacancy at Vice President or any of the other board positions will be filled by the Board by appointment within 15 days of the position becoming vacant, except should a vacancy occur within 30 days of the next Regular Meeting, then a Board nominee must be voted on by Membership at that next Meeting. Should the position of the Immediate Past President become vacant, the position will remain vacant until filled at the end of the President's term.

Section 6. Elections

The term of office (Section 3 above) and the tenure (Section 4 above) of Officers are reviewed at the Spring Board Meeting along with existing or expected vacancies. The results of this review are reported to the Membership at the Spring Meeting to seek nominations for or self-interest in available positions. Names of nominees (including incumbents, if any) are provided in the Fall *Claytonia* and presented to the Membership at the Fall Meeting for vote.

Section 7. Records of Office

Each Officer maintains the records of their office. Any Officer, upon the expiration of their term or the termination of their duties for any cause, must deliver up-to-date and organized records of the Office to his/her successor along with appropriate Procedural Guidelines (Article VIII)

Article VI – AD HOC COMMITTEES

Committees may be created by the Board to address specific issues. Committee Members may be from the Membership, the Board, or individuals outside ANPS, as appropriate. The process used by the Committee to address assigned issue(s) is chosen by the Committee itself. Progress and results are reported to the Board. As appropriate, results of a Committee's work will be presented to the Membership. Committees are disbanded by the Board.

Article VII - FINANCE

Section 1. The ANPS Fiscal Year is set as the calendar year.

The Fiscal Year begins January 1 and ends December 31 of the same year.

Section 2. Annual Budget

The Budget for the upcoming Fiscal Year is prepared by the Treasurer in coordination with and for acceptance by the Board. The Annual Budget accepted by the Board is presented to Membership for approval at the Fall Meeting.

Section 3. Income

The Treasurer receives and deposits all income including, but not limited to, dues, proceeds from the Fall Plant Auction, meeting registration fees, funds from promotions such as shirt and book sales. Dues received by the Membership Officer are forwarded to the Treasurer along with documentation. All funds from other sources are forwarded to the Treasurer along with documentation.

Section 4. Expenditures

Funds are spent as authorized by the Annual Budget or by the Board of Directors. Expenditures for Memorial Awards (Article IX) and Solicited Grants (Section 5 below) are by specific Board and Membership approval.

Section 5. Solicited Grants

a) Solicited Grants are one-time grants to an entity which has approached the Board for funds for a project consistent with the Objectives of ANPS. The Board may approve a small grant request up to \$500 from any single entity without receiving membership approval. Requests in excess of \$500 will be evaluated by the Board, and if approved, will be submitted to the membership at the next meeting for approval. The Board may approve several small grant requests provided the total of the grants does not exceed \$2000 in a single calendar year.

b) Approval Procedures: Upon receipt of a one-time grant request, the President normally appoints a member (board member or other responsible person) to review the request and make a recommendation to the Board. If the one-time grant request involves planting native plants in a garden area, the following conditions should be met: The location of the project should be in a public place. The project area should have recognizable boundaries to be able to distinguish it from its surroundings. The project should be planned to include only Arkansas Native Plants within the boundaries. The completed project will be required to display a small ANPS-provided sign recognizing the ANPS donation. (Note that the cost of the sign is not included in the grant request.)

c) Disbursement Procedures: Upon approval of a one-time grant request, the President advises the requestor of the decision. If the approved one-time grant involves donating money to some project (such as purchasing a tract of land), the President will direct the Treasurer to send the approved funds to the requestor. If the approved one-time grant involves purchasing plants and materials for a physical project, the President will advise the grant requestor that the grant has been approved. The requestor will then purchase the approved items, and forward the receipts to the President, who verifies both the receipts and completion or partial completion of the project and forwards the receipts to the Treasurer to reimburse the requestor. The President at the time a grant is approved, is the President of Record for that grant, and will be the person responsible for verifying receipts and completion of that project. Disbursement authority for any one-time grant expires one year from board approval (or membership approval for grants exceeding the \$500 threshold), and requires board approval for extension.

Section 6. Audits

An audit of the records of the current Treasurer may be made at any time, at the discretion of the Board, after a two-week notice to the Treasurer.

Article VIII - PROCEDURAL GUIDELINES

Procedural Guidelines are developed by the Officers to document the means and methods by which they fulfill their responsibilities under these bylaws. Similarly, the Board develops Guidelines for the Board to ensure proper operation of ANPS.

Article IX – ANPS MEMORIAL AWARDS, GRANTS AND SCHOLARSHIPS

Memorial Awards, Grants and Scholarships of ANPS are: 1) Dwight Munson Moore Award, 2) Aileen McWilliam Scholarship, 3) Delzie Demaree Research Grant, and 4) Carl Amason Conservation Award. Descriptions are provided in the Attachment. A record of recipients will be reported in the newsletter and on the website.

Article X - CHAPTERS

Section 1. Application

Members may, upon approval of the Board, form a chapter. When members in an area determine sufficient interest exists for a chapter, they may send an application letter to the Board for preliminary approval. The letter must include the names of at least eight members for the chapter, the purpose of the chapter, coverage area, and a chapter name.

Section 2. Formation

Within sixty days of receipt of the Board's preliminary approval, the proposed chapter must hold an organizing meeting(s) to draft bylaws and identify officers. The draft bylaws are provided to the Board. The Board shall respond within 30 days of receipt.

Section 3. Activities and ANPS Oversight

A chapter is authorized to undertake activities or projects that are consistent with the objectives of ANPS. Activities that could cause conflict with ANPS Bylaws are to be reviewed by the Board before such activities are undertaken.

Section 4. Business Dealings

A chapter may adopt its own membership rosters, procedural guidelines, and financial controls. Business dealings may not conflict with ANPS Bylaws. Chapter membership must be open to any person interested in the native plants of Arkansas, upon their application to the chapter and payment of chapter dues. Chapter dues are in addition to membership in ANPS.

Section 5. Suspension and Dissolution

Should the Board find a chapter to be in violation of the bylaws, the Board may suspend its approval of the chapter, but only after written notice allows time for the situation to be remedied. Should a chapter decide to dissolve itself, such dissolution will be effective upon the receipt of written notice by the Board. Upon dissolution of a chapter, any remaining assets of the chapter are to be transferred to the treasurer accounts of ANPS.

Article XI - AMENDMENT, REVISION AND WAIVER

These bylaws may be amended (rewritten in part) or revised (rewritten in whole). An amendment or revision may be initiated by the Board or Membership. All amendments and revisions are approved by the Board. Board-approved amendments and revisions are published once in *Claytonia* with a vote by Membership at the next Regular Meeting. A quorum as required in Article III, Section 3 and Article IV, Section 3 applies. If in the best interest of ANPS, a one-time waiver to any specific requirement of these bylaws may be approved by the Board. Such approval requires an affirmative vote by the majority of all Board Members. The waiver will be reported to Membership at the next Regular Meeting.

Article XII - DISSOLUTION

Upon pending dissolution of the Arkansas Native Plant Society, all remaining assets are to be distributed for educational or scientific purposes to an allied non-profit organization(s). The Board will designate the organization(s) to receive the assets.

ANPS MEMORIAL AWARDS

ATTACHMENT to the BYLAWS
MEMORIAL AWARDS OF THE ARKANSAS NATIVE PLANT SOCIETY

Dwight Munson Moore Award

This award honors Dwight Munson Moore, a long-time Arkansas botanist, who began teaching in Fayetteville in 1924 and was the Chairman of the Department of Botany, University of Arkansas, Fayetteville from 1926-1950. He was a Professor of Botany for more than 40 years, subsequently teaching at the University of Arkansas, Monticello, and Arkansas Tech University. He authored the Arkansas Forestry Commission publication, *Trees of Arkansas*. In his long and fruitful career, Dr. Moore taught and inspired several generations of college botany students throughout our state. The Dwight Moore award is given on the occasion of outstanding achievement in either research or publication on Arkansas botany. The Award will include an appropriate monetary consideration not to exceed \$1000.

Aileen McWilliam Scholarship

This scholarship honors the late Aileen McWilliam, named Arkansas' Outstanding Biology Teacher in 1965, a former member of the Arkansas Natural Heritage Commission, a noted author, promoter of the founding of ANPS, and a knowledgeable and ardent Arkansas naturalist. This scholarship, in memory of her devotion to the study of the Arkansas flora, is given annually to promising undergraduate or graduate students with a strong interest in botany. Individual scholarships will be given in amounts of up to \$2000.

Delzie Demaree Research Grant

This grant honors Delzie Demaree (1889-1987), Arkansas botanist and plant taxonomist and one of the twentieth century's most prolific and effective plant collectors, renowned to the world botanical community for his extensive collections of North American vascular plants. The grants are awarded competitively to undergraduate or graduate students in amounts of up to \$2000 for appropriate Arkansas botany- or plant ecology related research projects.

Carl Amason Conservation Award

The Carl Amason Conservation Award honors a man whose character and achievements reflected the best aspirations of Arkansas Native Plant Society membership. With unfailing energy and high spirits, Carl led field trips, shared plants, and wrote articles and accounts for *Claytonia*. He was a charter member, a past president, and auctioneer. His efforts on behalf of ANPS earned him universal acknowledgment as a most beloved and successful ambassador for the conservation and preservation of nature. The Carl Amason Conservation Award is given periodically to individuals whose personal efforts help all of us to conserve and enjoy nature's gifts. The Award will include an appropriate monetary consideration not to exceed \$1000.



Your 2020 ANPS Board of Directors hard at work taking care of business. Top row, left to right: Becky Hardin, Jennifer Ogle, Katherine Lincourt, Margaret Lincourt. Middle row: Mike Burns, Betty Owen, Susan Hardin. Bottom row: Virginia McDaniel, Eric Fuselier. Not pictured are Eric Hunt and Donna Hanke.

A look at the vascular plant communities of glades in the Arkansas Ozarks

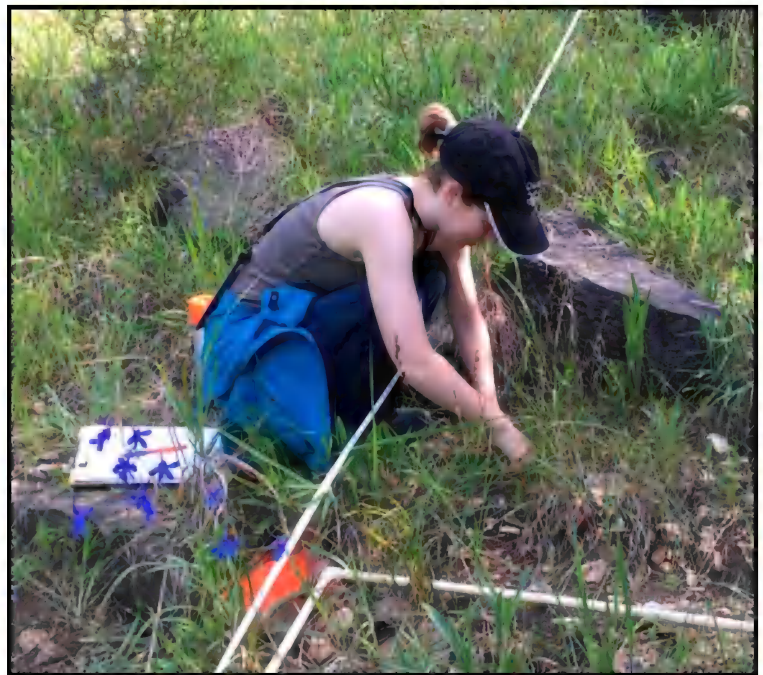
By Brittney Booth

Glades are one of the many habitats that exist in the Arkansas Ozarks. They are defined as open areas usually found within a forest and are characterized by shallow soil, exposed bedrock, high levels of sunlight, high temperatures in summer, and more moisture in winter. They can typically be found on the sides of slopes or on ridgetops. Glades of the Ozarks in Arkansas can be found on several different types of bedrock, including limestone, dolomite, and sandstone. Glades of the Ozarks are typically dominated by herbaceous angiosperms, with the dominant grass being little bluestem (*Schizachyrium scoparium*).

Glades of the Ozarks can be invaded by eastern red-cedar (*Juniperus virginiana*) and other drought-tolerant trees and shrubs which can threaten their existence. The invasion of the Ozark glades by eastern red-cedar and other woody species corresponds with fire suppression beginning in the mid-20th century by the U.S. Forest Service. Prior to the mid-20th century, fires had been more common in the Ozarks to clear land for cattle or agriculture, preventing eastern red-cedar and other drought-tolerant trees and shrubs from gaining a foothold. However, with the beginning of fire suppression, many glade habitats have been encroached upon by eastern red-cedar and other tree species that can withstand the drought-like conditions of the glades.

I was fortunate to do research in these glade habitats for my Master of Science degree in Biology from the University of Arkansas, Fayetteville. I was also fortunate to be a recipient of the Delzie Demaree Research Grant in 2017 to help fund my research. My research took place in the Devil's Eyebrow Natural Area (DENA) and on another piece of land, called the Banks tract, a few miles east of DENA. I was interested in looking at the vascular plant communities of limestone and dolomite glades to see if they had any major differences and could be managed using similar methods to control eastern red-cedar and other tree species. I sampled the vascular plant communities of limestone glades and dolomite glades over the late-spring and summer of 2017 and 2018. I did a lot of hiking and an almost equal amount of falling due to the steep terrain, sustaining at least one scar and countless bruises, but in the end I was able to document 149 vascular plant taxa over the course of my entire study. I was also able to photograph and identify 18 species of Lepidoptera (butterflies and moths) over the course of the study.

Ultimately, I was able to identify 115 vascular plant taxa and 12 Lepidoptera species in the dolomite glades located on the Banks tract. I was able to identify 103 vascular plant taxa and 7 Lepidoptera species in the limestone glades located in the DENA. The limestone and dolomite glades had a total of 69



Brittney Booth sampling a dolomite glade. Photo by Karen Willard.

vascular plant taxa and 1 Lepidoptera species in common. The family with the most vascular plant taxa documented in the study was the Asteraceae (Composite Family) with 28 taxa present. The next four families with the most vascular plant taxa documented in the study were the Fabaceae (Legume Family) and Cyperaceae (Sedge Family), each with 13 taxa present, followed by the Poaceae (Grass Family) with 10 taxa present, and the Euphorbiaceae (Spurge Family) with 7 taxa present.

From the data I collected on vascular plant taxa, I was able to compare the species richness, total abundance, soil composition, and diversity of the limestone and dolomite glades as well as the grade of the slope and the aspect of the glades themselves. The dolomite glades did exhibit a slightly higher species richness and total abundance (total number of individual stems) for both 2017 and 2018, but the diversity of the limestone and dolomite glades differed by only two-hundredths of a decimal place. I was also able to classify the vascular plant taxa of the limestone and dolomite glades as abundant, common, occasional, or rare, which showed similar distributions in terms of the number of taxa in each category for both the limestone and dolomite glades.

These minor differences in vascular plant species richness, total abundance, and diversity can be attributed to the slightly lower pH range of the limestone glades compared to the dolomite glades, as well as the steeper slopes of the limestone glades which led to more frequent washouts from rain and tree fall. The higher concentration of calcium and lower concentration of magnesium found in the soil analysis for the limestone glades as compared to the dolomite glades may also contribute to minor differences between the two glade types. In terms of the Lepidoptera that were photographed,



One of the more common vascular plant species, black-eyed Susan (*Rudbeckia hirta*) with a *Lepidoptera* species, checkered white butterfly (*Pontia protodice*). Photo by Karen Willard.

one reason for the higher number photographed in the dolomite glades may be the size of the glades themselves. The limestone glades comprise a series of smaller openings, whereas the dolomite glades comprise larger openings in the forest, which may make it easier for *Lepidoptera* to find host plants. The higher number of vascular plant taxa in the dolomite glades might have also contributed to the higher number of *Lepidoptera* photographed there due to the greater variety of host plants being able to support a greater variety of *Lepidoptera*. Due to the similarity of the limestone and dolomite glades, I was able to determine that they could be managed using similar practices, such as mechanical removal of eastern red-cedar and prescribed fire, without negatively affecting the overall diversity of the glades. It is important that we continue to manage and preserve these areas because they are a part of Arkansas' history and they deserve to be a part of Arkansas' future.



The late Linda Eliis working with Johnnie Gentry on the botanical illustrations for the book *Trees, Shrubs, and Woody Vines of Arkansas*.

New Members *(March 20 - September 7, 2020)*

J. Richard Abbott (Monticello, AR)

Karen Alexander (Shirley, AR)

Stephen Austin (Pea Ridge, AR)

Makenzi Black (Cabot, AR)

Christopher Burkhart (Fayetteville, AR)

Donna Curry (Little Rock, AR)

Charlotte DeRoche (North Little Rock, AR)

Martha Goldthorpe (Mayflower, AR)

Elizabeth Harris (Mountain View, AR)

Cheryl Hunter (Jefferson, AR)

Janice Jorolan (Hot Springs, AR)

Peggy Kilpatrick (Rogers, AR)

David Moore (Pineville, LA)

Nikki Schaefer (Eureka Springs, AR)

Jim Schlaf (Mountain View, AR)

Beth Siron (Midway, KY)

Paul Springer (Rogers, AR)

E. Ray Stinson (Saline, MI)

Stuart & Helen Ruth Towns (Forrest City, AR)

Jimmie Michelle Wilkins (Bee Branch, AR)

Dennis Wright (Batesville, AR)

New Lifetime Members

Jeff Cantrell (Neosho, MO)

Lynn Foster (Roland, AR)

Susan Frey (Winslow, AR)

Mariellen Griffith (Eureka Springs, AR)

Kathy Lacy (Drasco, AR)

Tammy Pope (Royal, AR)

Donna P. Stout (Winslow, AR)

Troy Waters (Caddo Gap, AR)

Kathleen Wittmann (Horseshoe Bend, AR)

November 6-8, 2020

OCANPS Harmony Mountain Retreat

All predictions for the Fall/Winter season suggest that, for the first time ever, the OCANPS Fall Retreat will have to be cancelled. A go-no-go decision will be made closer to the retreat dates and will be posted on the ANPS web-site.

Stay safe, everyone. We hope to see you on the trail soon.

For more information, contact Burnetta at wbhint@gmail.com.

GET READY! COMING DEC. 1, 2020

You will soon be able to purchase your very own copy of the totally new "Trees, Shrubs and Woody Vines of Arkansas", a book written by famous co-authors and long-time ANPS members Jennifer Ogle, Theo Witsell and Johnnie Gentry!

Hope you caught the gorgeous pictures of the book in the recent ANPS crowd-sourcing effort. Thanks to the generous contributions from 31 donors, we were able to raise \$1,000 within 24 hours. This money will help with graphic design expenses.

To find out more about the book, check out the *Request for Project Support* section of the ANPS.org website, <https://anps.org/sponsors/request-for-project-support/>

(I wondered how we can get author autographs...)

Arkansas Native Plant Society

Member Report

Fall, 2020

The Covid-19 virus caused the cancellation of the 2020 Spring and Fall Membership Meetings of the Society. The Board has also voted to cancel the Spring 2021 meeting. It will be replaced by a virtual meeting, and Eric Fuselier, incoming President, will send information on that at a later date.

The ANPS Board of Directors has met twice on Zoom and communicated via email to conduct the business of the Society. Several items will need to be voted on by the Membership by email this year. A ballot with the issues is provided on the last page of this issue of *Claytonia*.

Currently, ANPS has \$22,640.07 in the bank. Our annual plant auction was cancelled so our fundraising will be lower this year. But otherwise, income and expenses are working out as expected.

Austin Klais, Vice President, had to resign his position because he received a job promotion that moved him out of state. We miss Austin and wish him the very best of luck in his new position.

Memorial Awards of \$2,000 each were approved by the Membership, voting by email, for Grace McCartha and Caitlyn Sims. The awards were given a bit later than usual, due to the way we had to conduct the vote. The researchers were very grateful for the awards and are busy with their research.

A \$330 grant was awarded to Patrick Gentry to restore and maintain the gardens at East End Elementary School. These plots became a Monarch Waystation and pollinator garden in 2016.

Marvin Schwartz, Chair for the Ozark Society Foundation, requested support to complete the publication of *Trees, Shrubs and Woody Vines of Arkansas* by Jennifer Ogle, Theo Witsell, and Johnnie Gentry. The Board was very supportive of the project but thought that it would be best if we encouraged individual contributions. A fundraiser was held online on September 13th and \$1,000 was raised to support the publication.

Dues this year can be paid online or you can send your renewal check to: Katherine Lincourt, Treasurer, 2625 Charter Oak Drive, Little Rock, AR 72227.

Please sign up for the ANPS blog on our website to be sure that we stay connected during the pandemic. We promise we will not inundate you with messages!

Margaret Lincourt,
Secretary

Remember to check out the full-color version of the Claytonia by going to the ANPS website, <http://anps.org/newsletters/>.

	2019 Actual	2020 Budget	2020 Actual as of Sep 16			
INCOME						
Membership Dues	\$5,850.00	\$4,500.00	\$3,290.00			\$4,800.00
Meeting Registration	\$1,500.00	\$1,200.00	\$0.00			\$600.00
Plant/Silent Auction	\$2,550.00	\$2,500.00	\$0.00			\$1,800.00
T-Shirt, Hat, Book Sales	\$1,051.50	\$800.00	\$0.00			\$600.00
Fundraiser: Ozark Society Foundation	N/A	N/A	\$1,000.00			N/A
Contributions	\$1,472.00	\$0.00	\$50.00			\$0.00
TOTAL	\$12,423.50	\$9,000.00	\$4,340.00	➔	\$4,340.00	\$7,800.00
EXPENDITURES						
ANPS.Org (website expenses)	-\$99.00	-\$150.00	-\$99.00			-\$111.80
AR Flower & Garden	-\$75.00	-\$100.00	\$0.00			\$0.00
Claytonia (Print & Distribute 2 Issues)	-\$2,038.57	-\$2,000.00	-\$941.04			-\$2,000.00
Directory (Print and Distribute)	-\$1,058.52	-\$1,100.00	-\$1,136.75			-\$1,150.00
Memorial Awards (Awards/Scholarships)	-\$3,000.00	-\$2,000.00	-\$4,000.00			-\$2,000.00
Grants/Support to Public Gardens	-\$2,321.75	-\$1,000.00	-\$541.06			-\$1,000.00
Meeting expenses (space, copies, speaker,etc.)	-\$922.93	-\$1,000.00	\$0.00			-\$500.00
Ecology Camp	-\$500.00	-\$500.00	\$0.00			-\$500.00
Fundraiser: Ozark Society Foundation	N/A	N/A	-\$1,000.00			N/A
Bulk Mail	-\$225.00	-\$230.00	-\$235.00			-\$235.00
Supplies/postage/miscellaneous (Brochures)	-\$11.34	-\$300.00	-\$128.47			-\$100.00
T-shirts/Hats	\$0.00	-\$500.00	\$0.00			-\$200.00
TOTAL	-\$10,252.11	-\$8,880.00	-\$8,081.32	➔	-\$8,081.32	-\$7,796.80
		Total as of Sep 16, 2020	➔	\$22,640.77		

There are open grants to Patrick Gentry, the Drew County Master Gardeners, the City of Fayetteville, and SoMa (\$3,111.14)
Respectfully submitted by Kate Lincourt, Treasurer



ANPS 2020 Fall Meeting Cancelled Due to Pandemic
Stay Tuned for ANPS 2021 Virtual Spring Meeting Details!
Stay Safe, Wash Your Hands, Wear a Mask



ANPS MEMBERSHIP FORM

www.anps.org

Membership Categories

- ☐ \$ 10 Student
☐ \$ 15 Individual
☐ \$ 20 Supporting
☐ \$ 25 Family
☐ \$ 30 Contributing
☐ \$150 Lifetime (age 55+)
☐ \$300 Lifetime (under age 55)

Application Purpose

- ☐ New Member
☐ Renewal
☐ Address Change
☐ Opt out of receiving a paper copy of the *Claytonia* newsletter

Name

Address

City State Zip

Phone Email

Please mail this completed form with a check made payable to the Arkansas Native Plant Society to:

Katherine Lincourt, Treasurer
2625 Charter Oak Drive
Little Rock, Arkansas 72227

For other membership questions, please contact:

Virginia McDaniel, Membership Officer
anps.membership@gmail.com
(828) 545-2062

The Arkansas Native Plant Society is a non-profit organization.



Claytonia

Spring 2019
Newsletter

Your dues status is on your mailing label.

On the mailing label there will be a number, for example, "19", and this indicates that your dues are paid through 2019. (Life members will have an "LF" on their label).

To renew your membership, please fill in the application for membership, changes of name, address, e-mail or telephone number and mail your dues to the Treasurer:

Katherine Lincourt, Treasurer
2625 Charter Oak Drive
Little Rock, Arkansas 72227

Co-Presidents	
Susan Harden (501) 584-8455 whizcats@sbcglobal.net Becky Hardin (501) 584-8545 rebeccabutch@aristotle.net	
President-Elect Eric Fuselier Eric.Fuselier@craftontull.com 501-231-7455	Nominating Committee Chair Donna Hanke djhanke@centurylink.net (479) 967-5717
Vice President	Memorial Awards Officer Jennifer Ogle ranunculus73@gmail.com (479) 957-6859
Secretary Margaret Lincourt margaret@usscanman.com (501) 786-3318	Publisher Mike Burns anps.membership@gmail.com (479) 229-2185
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Membership Officer Virginia McDaniel virginiamcd31@yahoo.com (828) 545-2062	Internet/Social Media Officer Eric Hunt anps.web@gmail.com

President's Message

Susan Hardin & Rebecca Hardin

Isn't it a darned good thing that native plant people are so adaptable? We're all beset with an enormous number of changes not only in our daily lives, but now they're well extended into our ANPS organization too. We must make changes with most everything we do, but do it—we'll try, and we'll give it the best effort we can muster.

We've dealt with the changes resulting from cancelled field trips, cancelled meetings, no speakers, no hobnobbing with our native plant buddies, no shared laughter during sales of fun things at our once-a-year native plant auction, and another blow—even possible upcoming changes with *Claytonia* due to reduced income, so now, what else?

Well—how about some good changes like our just-revised, completed ANPS bylaws? Or new officers with new ideas? Virtual ANPS speakers that we can all see and hear right in our home, or virtual educational activities, virtual field trips, possibly even virtual membership meetings, virtual fundraising efforts or online crowd-sourcing—all from the comforts of your sofa or while sitting at your dining room table eating chocolate pie?

Could be fun, and for those of us who are not adept with computers or iPads, remember that when we learn new things, it actually helps to build new neural networks and pathways in our brain... so can only be good for us. And if no computer at home, maybe your library or neighbor can help you get set up.

Once online, you can then admire the beauty of the excellent pictures that are in each issue of *Claytonia*, and the online version is the only one where you can admire our gorgeous native flowers, etc., in full, living color. Go see!

We surely hope you will, since VIRTUALLY is the only way that we can remain connected and see each other until we're finally back again in the big meeting rooms at our Spring and Fall Meetings.

YES! Let's stay on our toes, adapt and go forward until we eventually change back to how it used to be, but maybe we'll keep a lot of these good changes too.

See you somehow, someday.

The Presidential Pandemic Sisters

Ballot for Voting - Fall Claytonia 2020

ITEMS REQUIRING A VOTE BY MEMBERS: (Please circle Yes or No for each item.)

1. Kate Lincourt has prepared a budget for 2021 that appears in this newsletter.
I vote to approve the 2021 budget. YES NO

2. The Board recommends Nate Weston for the Office of President-Elect.
I vote for Nate Weston to be President-Elect. YES NO

3. The Board recommends Joe Ledvina for the office of Vice-President.
I vote for Joe Ledvina to be Vice-President: YES NO

4. The ANPS Bylaws were revised due to issues caused by Covid-19. (In this issue.)
I vote to approve the 2020 Revised Bylaws. YES NO

You can email your completed ballot or response to questions 1-4 to Becky Hardin at rhardin@att.net or text it to 501-584-8545. If mailing your ballot, send to Becky Hardin, 22400 Chandler Drive, Little Rock, AR 72210.

You can also fill out a piece of paper with your completed ballot questions, take a picture and email or text it to Becky or mail it to her home address. If there are multiple members in your household, you can put your votes on paper and send them on.

If you have questions related to voting, please email, text or call Becky at 501-584-8545. Voting will end on Oct. 16, 2020.

ARKANSAS NATIVE PLANT SOCIETY

Membership, Virginia McDaniel
833 Bellaire Drive
Hot Springs, AR 71901

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